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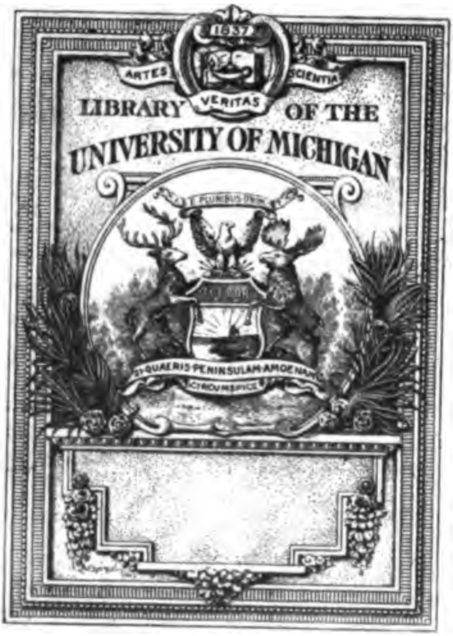

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THIRTY-SEVENTH ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE

STATE OF NEW JERSEY

1913

AND

Report of the Bureau of Vital Statistics

PATERSON, N. J.
News Printing Co., State Printers.
1914

Letter of Transmittal.

TRENTON, N. J., October 31, 1913.

To His Excellency Leon R. Taylor, Acting Governor of New Jersey:

SIR—I have the honor to transmit herewith the Thirty-seventh Annual Report of the Board of Health of the State of New Jersey, and the Report of the Bureau of Vital Statistics.

Very respectfully,

JACOB C. PRICE,

Secretary.

Board of Health of the State of New Jersey.

MEMBERS.

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William H. Chew, Vice-President	Salem.
Jacob C. Price, M. D., Secretary	Branchville.
Herbert W. Johnson	Haddonfield.
Richard C. Newton, M. D.	Montclair.
Oliver Kelly	Oak Tree.

The offices of the Board are in the State House, Trenton.

ORGANIZATION.

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Dr. Jacob C. Price, Secretary and Executive Officer in charge of the Bureau.

Dr. A. Clark Hunt, Assistant Secretary.

Charles J. Merrell, Chief Clerk of Board.

Edmund R. Outcalt, Clerk, First Class.

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Dr. R. C. Newton, Supervising Member.

Dr. A. Clark Hunt, Chief of Bureau.

David C. Bowen, Chief Sanitary Inspector.

William H. MacDonald, Assistant Sanitary Inspector.

Wallace T. Eakins, Assistant Sanitary Inspector.

Dr. M. F. Knowlton, Director of Tubercolosis Work.

Charles W. Kimble, Mech. Tuberculosis Exhibit.

S. Elizabeth Wilkes, Clerk, First Class.

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S. S. Vandruff, Creamery and Dairy Inspector.

F. C. Robertson, Creamery and Dairy Inspector.

Samuel S. DeCou, Creamery and Dairy Inspector.

W. D. Goulding, Creamery and Dairy Inspector.

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R. B. Fitz-Randolph, Chief of the Bureau.

DIVISION OF BACTERIOLOGY:

J. V. Mulcahy, Chief Bacteriologist in charge of Division.
C. K. Blanchard, Assistant Bacteriologist.
J. A. Moran, Laboratory Assistant.

DIVISION OF FOOD AND DRUGS.

W. G. Tice, Chief Chemist, in charge of Division.
H. W. Denny, First Assistant Chemist.
J. E. Bacon, Assistant Chemist.
F. E. Whitehead, Assistant Chemist.
H. B. Warren, Assistant Chemist.
W. W. Scofield, Jr., Cold Storage Inspector.
I. H. Shaw, Slaughter House Inspector.
W. S. Townsend, Food and Drug Inspector.
Louis Tremallo, Food and Drug Inspector.
E. W. Parsons, Captain Oyster Inspection Boat.
R. M. Ficht, Canning Factory Inspector.
A. Foy, Laboratory Assistant.
C. Burt, Laboratory Assistant.

DIVISION OF WATER AND SEWERAGE INSPECTION.

F. E. Daniels, Director of Water and Sewerage Inspection in charge of Division.
J. J. Newman, Assistant Sanitary Engineer.
W. J. Orchard, Assistant Sanitary Engineer.
H. P. Croft, Assistant Sanitary Engineer.
C. B. Robinson, Water and Sewerage Inspector.
F. C. Worman, Water and Sewerage Inspector.
C. W. Sparmaker, Water and Sewerage Inspector.
N. A. Keeler, Water and Sewerage Inspector.

DIVISION OF ENGINEERING.

C. G. Wigley, Chief Sanitary Engineer in charge of Division.
N. E. Frissell, Assistant Sanitary Engineer.

OFFICE.

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Anita M. Stephan, Clerk, First Class.
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H. F. Kemler, Clerk, First Class.
Frances F. Cox, Clerk, First Class.
M. Rae Valentine, Clerk, Second Class.
Bessie Harrison, Clerk, Second Class.

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Report of the Board.

To His Excellency, Leon R. Taylor, Acting Governor, Trenton, New Jersey.

SIR:—The State Board of Health submits herewith the report of its work for the year ending October 31, 1913, together with such suggestions concerning additional legislation as experience has shown to be desirable.

The demands upon this Department are rapidly increasing, and to keep pace with them more power, additional inspectors and larger appropriations are necessary.

The employees of the Board have been unusually industrious during the past year but they have found it difficult to keep up with the work demanded of them. Certain lines of activity which might well engage the attention of the Board have not been undertaken because of the pressure of other and more important work.

The Board has been hampered, too, in getting its recommendations before the Legislature because of the delay in receiving the printed reports. Attention has been called to this repeatedly, but to no avail. The report for the year ending October 31, 1912, has not been received from the printer as yet although the copy was prepared and sent in over a year ago. Such delay makes the report of little value except for statistical purposes. The Board has exerted every means in its power to correct this condition, but has been unsuccessful owing to the fact that the matter was beyond its control.

During the year the question of opening all meetings of the Board to the representatives of the press has been thoroughly discussed and the decision to meet in executive session was reached after it had been clearly demonstrated that many of the matters which come before the Board at practically every meeting are not properly subjects for newspaper publicity. Full and free information, however, is given at all times to the press upon all matters about which the public should be informed. All hearings upon important questions are open to the public. In addition, the Board at the first of each month gives out and sends broadcast over the State a detailed statement of the work done in each Bureau for the month preceding. This is not as complete as the Board would have it, but it is about all that can be done with the means provided. The proper way to put this information before the public is in the form of a health bulletin similar to that published in other States, but the Legislature has never shown a willingness to give money for this purpose. Thus, a great opportunity for educational work in health matters has been lost.

The question has been asked why the Board has not fixed a limit for the expenses of its inspectors or other employees travelling on work of the Board. This has not been done because past experience has shown that a hard and fast rule limiting these expenses would often seriously interfere with efficient work. Under the present plan the Board requires each inspector to forward daily a report of his work with vouchers for all expenditures made. This was never done until the present Board took charge of the work. These expense bills are examined by the Chief under whose direction the inspector is working and presented to the auditing committee of the Board before final payment is made. State health work is so diversified in character, and is so freqently of an emergent nature, that the Board believes that the plain under which it is now working is the most practical and economical one. The point has also been raised that a portion of the expense now borne by the State Board for inspection work should be met by the localities which are benefited, but a careful investigation of such a plan, it is believed, would demonstrate its impracticability. It would be found that local influences would interfere with impartial investigations and the carrying out of necessary orders and would take from the State Board direct control in cases where drastic action is frequently necessary for the general good. Greater co-operation between the State Board and the local authorities is to be desired, but where it is necessary to secure prompt results from an inspection force there should be no division of responsibility in the carrying out of the Board's orders. A State employe owes his first allegiance to the State, but a local employe acting for the State but not paid by it might be influenced and probably would be in favor of the community employing him.

It would be ideal, of course, to apportion the cost of administering the State health laws among the various counties or municipalities but the scheme does not seem practical for many reasons. Health work is often as unpopular as it is necessary, and no interference can be permitted in times of emergency. Therefore a State inspector unknown in a community can accomplish much more and do the work more promptly and effectually than a local inspector equally conscientious and skilled. Local influences do not hamper him. The Federal government would no doubt like to have the States pay for its inspection work were the plan feasible, but that it is not is evidenced by the fact that State aid is rarely invoked until the Federal inspectors have gathered the important evidence. Inspection work, too, is frequently of a police character and the best results cannot be obtained if the investigator is well known in the community in which he is assigned to work.

The greatest weakness the present Board has discovered in State health work has been its inability to secure uniform and necessary action by local Boards of Health. The original act creating the State Health Department made the State Board's powers advisory in dealing with purely local problems. It still has only that power. Greater efficiency throughout the State could be obtained at little additional cost by giving to the State Board power to enforce the orders or advice which it now gives local boards. In some States the State Board of Health is given power to enforce its orders by actually taking charge of the work which the local authorities should themselves do, and charging the cost of such work against the community benefited. It is believed that some such power as this would prove of great service both to the State and the several localities because it would insure the carrying out of really necessary local regulations. Further it seems hardly likely that a local community would permit the State Board to exercise this authority because that locality could not then control the expense. If the State Board had the power to assume absolute control where its orders were disobeyed, that power alone would be sufficient very often to accomplish the end desired.

REORGANIZATION OF DEPARTMENTS AND GRADING OF SALARIES.

The committee of the Board which was appointed three years ago to make a careful study of any changes in the organization of the departments which would lead to increased efficiency, presented in October a plan for equitable and uniform salary increases.

As one of the Divisions originally designated by the Board included Food and Drugs, the Laboratory of Hygiene, and the Supervision of Water Supplies and Sewerage, the committee recommended that Bureaus should be formed to take the place of the Divisions. This suggestion was based upon the theory that a bureau could be divided into smaller divisions and subdivisions and that the term was therefore a preferable one.

The subject of the classification of employees, definitely fixing their titles and making a scale of salaries was the most difficult problem presented to the committee.

For a number of years the custom was followed of starting employees on a small salary and from time to time, but with no regularity, salary increases were made. The employees under this system had no way of knowing when an increase of salary could be expected. As a result of this method the services of valuable employees were lost, any offer of a new position with an increase in salary being accepted. Not only was the Board deprived of the services of the individual but often valuable time and money had been expended in training the employees in special lines of work.

The plan recommended by the committee and adopted by the Board took into consideration the whole salary question believing that employees had a right to know in advance what increase in salary might be expected if the services rendered were satisfactory.

This classification is herewith presented as the Board believes that it may be of service to other departments which have been laboring under similar difficulties in securing a satisfactory basis upon which to grant increases of salaries to employees:

CLASSIFICATION OF EMPLOYEES AND SCALE OF SALARIES.

Class 1.	Employees Having Technical or Special Training.
Grade A.	The Chief of the Bureau. Salary to be fixed by the Board from time to time. Minimum, $2,000.
Grade B.	First or Chief Assistants in charge of particular lines of work. Minimum, $1,800, to be increased to $1,900 at the end of the first year and to $2,000 at the end of two years if efficiency record is satisfactory. Increases above this figure to be based upon efficiency and length of service but no definite rule established.
Grade C.	Assistants, consisting of men who have had considerable experience when appointed or who have been promoted from Grade D. Minimum $1,200; Maximum $1,800. Minimum to be increased to $1,350 at the end of the first year, to $1,500 at the end of the second year, to $1,650 at the end of the fourth year and to $1,800 at the end of the sixth year.

Grade D. Junior assistants, consisting of men who have had little or no experience when appointed. As a rule Class 1 men, when appointed, will come within this grade.

Minimum $1,000. Maximum $1,200. Minimum to be increased to $1,100 at the end of six months and to $1,200 with promotion to Grade C at the end of one year.

Class 2. Employees not having Technical or Special Training, engaged in work other than clerical.

Grade E. Inspectors. This grade will include all inspectors who have had at least two years' experience and whose efficiency record is good. It may also include recent appointees who have had exceptional advantages in the way of previous experience.

Minimum, $1,000. Maximum $1,500. Minimum to be increased to $1,100 at end of one year and to $1,200 at end of three years, and to $1,350 at end of five years. Increases over $1,350 only to be made in cases of unusual efficiency.

Grade F. Assistant Inspectors. This grade will include all inspectors when first appointed (with the exceptions noted under Grade E) and employees from this grade will be promoted to Grade E at the end of one year if their efficiency records are satisfactory.

Grade G. Laboratory Assistants or Helpers. This grade will include all non-technical employees in the Laboratory.

Minimum, $480; Maximum $900. Increases to be made from time to time at not less than yearly intervals. It is not possible to rule more definitely for this grade as it contains employees of both sexes with widely varying duties.

Class 3. Bureau or Division Clerks and Stenographers.

Grade H. The Chief Clerk who has supervision over all office work.

Minimum, $900; Maximum, $1,200. Minimum to be increased to $1,000 at the end of one year and to $1,100 at the end of three years and to $1,200 at the end of five years.

Grade I. First class Clerks and Stenographers.

Minimum, $720; Maximum, $1,000. Minimum to be increased to $800 at the end of one year, to $900 at the end of two years and to $1,000 at the end of four years if efficiency record warrants increase.

Grade J. Second class Clerks and Stenographers.

New Appointments will be made in this grade, and promoted from it to Grade I in one year if efficiency records are satisfactory.

Minimum, $600.

In case of extraordinary efficiency or unusual ability, increases in salary and promotions may be made at shorter intervals. By the same rule, increases will not be made if the record of the employee does not warrant it.

BUREAU OF CONTAGIOUS DISEASES AND SANITARY INSPECTION.

The experience of a number of years in administering the original health law of 1887 leads to the definite conclusion that while the advisory relation of the State Board to local boards of health has been of great service in directing those boards in the adoption of proper methods for the prevention of communicable diseases, and in preventing unreasonable and illegal action by these boards, there is, as has been stated before, an inherent weakness in the law in that no power is vested in the State Board of Health requiring the enforcement of health regulations in the various sanitary districts of the State.

Although in many localities the service rendered by local boards of health is satisfactory, in the smaller sanitary districts and especially in townships no adequate protection of health is secured. Last year there were four hundred and eighty-five sanitary districts in New Jersey, and of this number two hundred and thirty-six were townships. It is at once apparent that cities in which adequate service is rendered by health boards are often surrounded by townships and smaller boroughs where the opposite conditions prevail, and, therefore, cases of contagious diseases which are not properly isolated or quarantined may carry the infection to the cities and virtually render useless the protective measures adopted by the cities.

The suggestion is therefore repeated that some change should be effected in the present law which will empower the State Board of Health in localities where the control of contagious diseases is unsatisfactory and no attention is paid to the enforcement of health laws to compel local boards of health to take action, and in the event of failure to comply with the directions of the State Board within a given time, permit the State Board of Health to take direct control and to make the expenses incurred a charge against the sanitary district.

This suggestion is made as the solution of the most intricate problem with which this Bureau of the Board is confronted, and with the belief that such a change in the present law would lead to an immediate and lasting improvement of present conditions; tend to a lessening of case and death rates and lead to prompt abatement of many nuisances which not only affect the health of communities, but add to the discomfort of citizens.

TUBERCULOSIS WORK.

The appropriation for this educational work has been expended in giving exhibitions in various parts of the State. Up to the present time Essex, Hudson and Passaic Counties have been covered, and exhibitions have been held in Camden, Salem, Union and Middlesex Counties. Over 435,000 persons have seen the moving pictures and stereopticon views relating to tuberculosis, and over one million pieces of literature have been distributed.

The following changes in existing laws relating to tuberculosis hospitals and the exhibit will broaden the scope of this work. Special attention is directed to the necessity of a change in the law which will permit the extension of the exhibit so that other health problems may be presented. Many opportunities for health education along the lines of disease prevention could be presented and moving pictures and lectures could be given on such subjects as contagious diseases, oral hygiene, school hygiene, etc.

1. An amendment to the hospital law permitting nurses to act as superintendents of hospitals in the smaller counties instead of physicians; also permitting the Boards of Freeholders to act as managers for the hospitals in said counties, instead of appointing separate boards, as now required.

2. An amendment to the act under which the Tuberculosis Exhibit is conducted; permitting the broadening of the scope of educational work so as to include all subjects pertaining to health, hygiene, and sanitation.

3. An amendment to the Act requiring a booth for motion picture machines, that will enable the use of asbestos cloth booths instead of the board booth, as now required. The present law makes no provision for a traveling show.

4. The placing of the Mechanician of the exhibit in the unclassified Civil Service list.

5. Provisions for a State license to operate a motion picture machine so that the operator may be relieved of the necessity of taking local examinations. Some provision also should be made by which the State operator is not required to pay the examination fees to the various municipalities.

The suggestions as to the use of an asbestos booth and the licensing of the operator may involve the consideration of the general regulations for the control of motion pictures. The Board believes, however, that some release should be granted from the unnecessary annoyances encountered under the present system.

The recommendations as above stated are based entirely upon a desire to secure the best returns to the State for the moneys expended in the protection of health.

BUREAU OF VITAL STATISTICS.

In 1911 attention was called to the fact that an improved tabulating equipment in the Bureau of Vital Statistics would be of advantage, and a Hollerith Tabulating Machine, with proper help to operate the same, was requested. No action in this regard has yet been taken, and it is hoped that in view of the tendency towards greater efficiency along this particular line of work, this matter will receive early attention.

The need for precision, speed and economy in the production of information contained in the reports of vital facts, and the preparation of data in connection with the same, makes necessary some advanced method for this purpose.

Another matter which should receive early consideration is the preservation and indexing of the old records of births, marriages, and deaths, which were originally on file in the office of the Secretary of State, and were turned over to this department when it was established in 1878.

The demand for searches is gradually increasing, and while these old records are too incomplete for the proper study of health conditions at that period of time, they are vitally important for personal and legal use. Another reason for having such an index is the fact that at the present time the constant searching and handling of these old records is fast tearing them to pieces, and in some cases wearing them away to such an extent that they are almost illegible.

If an index is provided for these records there will be no reason to handle the original books unless a record is found in the index, and thus these records would be preserved for many years to come.

A great increase in the work of the Bureau of Vital Statistics has been brought about by the enactment of recent laws giving pensions to widows in this State, requiring that the applicant for the said pension must procure a public record of the birth of each child. In many cases these applications number twenty-five and thirty a day.

The marriage license law seems to be satisfactory with the exception of that portion of the act relating to common-law marriages. It will be recalled that justices of the peace are prohibited from performing marriage ceremonies; but notwithstanding this a few of these officers still insist on taking part in promoting clandestine marriages. Their method is to advertise the fact that they will assist persons to be married without the formality of procuring a license. They do this by having the contracting parties appear in the presence of witnesses and take each other as man and wife, thus consummating what is known as a common-law marriage. It is recommended that some amendment be made to the law to prevent this practice as it is a recognized fact that most of such marriages end in disgrace and divorce.

BUREAU OF CREAMERY AND DAIRY INSPECTION.

Marked improvement in the milk supply of the State during the past five years has been apparent to those who have been actively engaged in the practical end of the work of milk and dairy inspection. This is particularly gratifying when we realize that the state for many years pursued a policy of milk inspection without securing any great improvement in the hygienic condition of the public milk supply. Its work then was chiefly detecting the presence of water or some other foreign substance in milk, and catching and punishing the culprit who was guilty of committing the act of adulteration.

The health authorities were well aware that some thing more than laboratory reports were needed to safeguard a product which holds so important a place in the diet of our people, but the difficulty was to devise a practical plan whereby the necessary co-operation of the farmer or producer could be secured to aid in the work. This has now been accomplished in a marked degree by the system adopted by the present Board through this bureau.

The work thus far accomplished has been necessarily slow on account of its educational features. The farmer wanted to be shown how he would be benefitted by adopting cleaner methods and more scrupulous care in his milk handling, and also whether or not his added profits would justify the extra care he might give to his dairy work. It has taken time and patient work on the part of the inspectors to accomplish what has already been done, but the work of reform is now firmly established, and each new district soon shows improvement in its milk supply. After the dairyman is shown what changes in his methods will be acceptable to the health authorities, he, as a rule, does all he can to meet the imposed conditions.

Besides the inspection of dairies, this Bureau has charge of the inspection of ice cream factories and creameries or milk shipping stations which are required by law to be licensed. It is important that correct and explicit instruction be given to ice cream manufacturers and creamery operators, relative to the proper handling of their products before a license can be issued to them. In this work the inspector must rely upon his own powers of observation and consequently must have a thorough knowledge of proper methods in the manipulation of milk and its products before recommending improvements intended to safeguard these commodities.

The work of the Bureau is now being done with the aid of a chief, five inspectors and one clerk who takes care of the office records. The five inspectors now employed by the Board cannot possibly take care of the increased work of the department, and it is earnestly hoped that at least $4,000 will be added to the present appropriation. This would provide for at least two more inspectors and a clerk, and would allow a reasonable increase in salaries, which years of training entitle the inspectors to receive.

If this work, which has taken so much time and care to develop, is to continue in a systematic way, and if the Board is to meet the demands of the different municipalities for a periodical inspection of their milk supplies, this additional appropriation must be granted.

Additional legislation is also desirable in order to simplify the work in such a way that the proprietors of the inspected premises may know exactly what the law requires. As the laws now stand, dairy requirements are included in several different acts, which should be incorporated into one statute bearing upon this particular subject.

A comprehensive bill will be prepared for introduction at the coming session of the Legislature, which, if it becomes a law, will inform the milk producer under just what conditions milk must be handled in order that it may be sold. Frequent inquiries are now received at the office of the Board for the State's regulations regarding the equipment of dairy buildings. Since there are no specific requirements in the law, the Board has adopted rules regulating these matters, but a statutory regulation on important points bearing upon the health of the cattle and the hygienic condition of the milk would soon result in more uniform conditions throughout the State.

BUREAU OF FOOD, DRUGS, WATER AND SEWERAGE. DIVISION OF BACTERIOLOGY.

The Laboratory of Hygiene, which is located in rooms on the fourth floor of the State House, is now overcrowded because of the greatly increased work which it has been called upon to do during the last four years. Because of this overcrowding, much of the work is being done under considerable disadvantages on account of insufficient room. The Laboratory should, if possible, be located outside of the State House in a building especially adapted for that purpose. The floor space available at present for laboratory purposes is a little under 1,200 square feet. In order that it may be properly equipped, at least 3,000 square feet of floor space should be provided at the present time, and, if provision is to be made for a reasonable growth within the next five years, the minimum allowance should be at least 4,000 square feet.

The office space provided for the Chief Sanitary Engineer and his assistants; for the Chief Chemist and his assistants, and for the Director of Water and Sewerage Inspection and his assistants is also entirely inadequate, and their work is hampered because they are all crowded into one room. At least three, and probably four, rooms should be provided for these men. These rooms should be located in immediate proximity to the Laboratory.

The inadequate space available is most keenly felt in the Bacteriological Laboratory, the work of which has greatly increased during the last four years. The Laboratory should be prepared to undertake the examination of blood from suspected cases of syphilis by the Wasserman reaction, and of specimens of blood from suspected cases of glanders by means of the complement fixation test, and should also be in a position to make other examinations of the same general nature. Constant demands for these examinations are being received from physicians throughout the State, and the results of such examinations would be of considerable value in enabling physicians to take adequate measures to protect the public health. It is impossible, however, to undertake these new lines of work until more laboratory space can be secured, and until an additional bacteriologist can be had to make these examinations. The Board cannot employ an additional bacteriologist at the present time, because there is no place in which he can work.

More laboratory space is also needed, in order that certain investigations may be carried on looking toward the discovery of suitable methods for disposing of sewage, and particularly of trade wastes. The disposal of trade wastes in this state is becoming a very serious problem, and the Board should be prepared to make investigations along these lines. This cannot be done until some suitable space can be provided where these experiments can be made.

In addition to the need for more room in the Laboratory, certain changes in the laws under which this Division operates are desirable. The establishment of mnuicipal laboratories in this state is on the increase, and the State Laboratory should be prepared to advise and co-operate with these institutions if uniformity in the work of the various municipal laboratories is to be secured, and if their work is to be kept up to the high degree of efficiency which is necessary. An investigation recently made of some of these laboratories shows that a number of them are insufficiently equipped with apparatus and supplies, and that the men who operate them have other duties which take much of their time. It, therefore, happens that these laboratories are purchasing such articles as culture media, standard solutions, stains and the like, which are ordinarily made by laboratory men themselves. Such supplies are purchased from commercial houses, and there is considerable doubt as to the reliability of the preparations which are furnished. The State Laboratory could be of great service to these smaller laboratories, if it was in a position to supply them wth such substances as culture media, standard solutions and stains, at the cost of production. They would then be assured that the articles with which they work, and upon which the reliability of their results depend, would be accurately made and of uniform quality. Such co-operation between the State Laboratory and local laboratories would bring them more closely in touch with each other, and would result in very great benefit to both sides. It is suggested that an enabling act be passed which will permit the State Laboratory to prepare and dispose of such articles as culture media, stains, standard solutions, vaccines and the like, at a reasonable cost.

DIVISION OF FOOD AND DRUGS.

Certain changes in the food and drug legislation now in force in this State should be made, in order to secure more effective enforcement of these laws. An amendment to the Food Law, which would permit the commencement of an action by warrant, would materially strengthen the act. It is also desirable to provide for the arrest, without warrant, of persons violating the act in the presence of an officer or employee of the State Board of Health, or of local boards. The law should also be amended so as to make it include the Shirley Act, recently passed by Congress, as an amendment to the Federal Food and Drugs Act. This amendment prohibits the making of fraudulent claims regarding the curative or therapeutic effect of drugs, and it also provides that articles of food which are put up in packages shall be labeled with the correct net weight, measure or numerical count of the articles contained therein. The Food Law in this state was substantially the same as the Federal Food and Drugs Act until the Shirley amendment was passed by Congress, and similar requirements should be made in this state to preserve the uniformity between these acts which formerly existed.

In order to better regulate the sale of soft drinks and alcoholic beverages, more specific regulation is needed. This should include the establishment of standards. More specific legislation, with respect to the sale of adulterated and imitation lard, is also needed.

The Cold Storage Act, which was passed in 1911, is defective in a number of particulars, and should be amended. Warehousemen should be required to submit reports of the goods held in storage monthly instead of quarterly, as at present, as not sufficient information is secured as to the amount and kind of goods which are held in storage from these quarterly reports. The law should also be so changed as to require the marking of foods with the date when they are released from storage, as well as the date of entrance into storage, and a further provision, requiring that all goods which have been in cold storage be so marked when offered for sale, is desirable.

Investigations made by the Board, during the past three years, have shown that the business of breaking eggs for food purposes is one which needs such close supervision, in order that a cleanly and healthful product may be insured, that legislation is recommended providing for the licensing of all such establishments, and fixing a penalty for breaking eggs for food purposes without a license. A requirement should also be made that eggs, which are broken for tanners use, should be denatured by the addition of some suitable substances which will make it impossible to use the product for food. Eggs in the shell, which have been candled and found to be decomposed, should be required to be labeled in such a manner that their true character is disclosed.

It is also recommended that legislation be enacted to prevent the use of coloring materials and preservations in meat and meat products, and to define the terms "blend," "mixture" and "compound." At present, much confusion exists as to the exact meaning of these words.

There is no system of meat inspection in force in this state, and large numbers of animals are slaughtered annually, a considerable proportion of which are diseased, and which receive no inspection whatever. This is a condition which should not exist, and legislative action is required which will result in some method of supervising the slaughtering of animals for food.

WATER AND SEWERAGE INSPECTION.

In order that the people of the state may be protected from the dangers resulting from the use of impure water, watersheds, furnishing water for public supplies, which is used without filtration or other treatment, need to be very carefully watched, in order to prevent dangerous pollution. This implies a constant sanitary patrol on such watersheds. The State Board of Health cannot, with the force of men it now has, inspect these watersheds with sufficient frequency. Provision should be made whereby the municipalities, using the water from such sheds, should be required to maintain a force of inspectors, upon such watersheds, adequate to discover and prevent dangerous pollutions. In order to secure uniformity in this work, it would be well if such inspectors were required to work under the general direction of the Board, and to report to the Board the results of their findings.

A considerable number of municipalities in this state maintain filtration plants for the purification of their water. These plants must be operated in a satisfactory manner, if a safe water is to be secured. The Board has found that some of these plants, particularly the smaller ones, are not operated in a satisfactory manner, because the persons employed to run them are not sufficiently versed in the method of operating filter plants. It is recommended that an act be passed, requiring that all persons, before being permitted to operate water purification or sewage treatment plants, pass a civil service examination which will demonstrate their fitness to perform these very important duties.

It is also recommended that the law, requiring the collection and examination of samples of water from every public water supply in the state at least four times a year, be so amended that the number of samples which are to be collected be left to the discretion of the Board. The collection of samples at quarterly intervals from some of these supplies is unnecessary, and requires an expenditure of funds which might better be devoted to more frequent examinations of samples from supplies which are likely to become polluted.

It appears to be advisable to have a law which would permit the State Board of Health to make rules and regulations for the control and prevention of pollutions of water supplies. These rules would directly refer to the activities of inhabitants of towns within watersheds which might discharge polluting material into the water. Such an act could follow, in a general way, one now in existence in New York State, which contains similar provisions, and which operates very satisfactorily.

DIVISION OF ENGINEERING.

Inquiry has been made as to whether it is possible to draft an act which will compel municipalities to reconstruct existing inadequate disposal plants, and to compel them to construct disposal works when they have refused to comply with the orders of the Board to do so. The Board is informed that the only method of accomplishing this is to draft an act, by virtue of which the works shall be constructed under the supervision of the engineers of the State Board of Health, or engineers employed by the Board, and the cost of such works assessed by an order of the court, directing that a certain percentage of the taxes be set aside annually for the purpose of paying such costs. The Board does not believe that this method is practical at the present time, but attention is directed to the matter, because of the fact that the procedure now available to compel municipalities to obey the orders of the Board, by bringing suit in the Court of Chancery, results in long delays. This is well illustrated by the case brought by the State Board of Health against Phillipsburg, for polluting the Delaware River. This case was started in 1907 and is still undecided. This long delay has seriously interfered with the efforts of the Board to prevent the pollution of streams.

It is also recommended that the proviso in Section 6 of Chapter 72 of the Laws of 1900 be repealed. This section permits the extension of existing sewer systems, without the submission of plans to the State Board of Health for approval. The necessity for this proviso has now ceased, and it would be for the best interests of the State to have all plans approved, so that the Board may be in a position to prevent unsuitable or defective installations. It is obvious that within a few years most municipalities in the State will need to install some form of sewage treatment, not excepting those which discharge sewage into New York Harbor and adjacent waters. It, therefore, appears advisable to have all plans for sewer extensions submitted to the Board, in order that some definite policy, with respect to the discharge of sewage into the waters of the state, may be formulated and carried out.

COUNTY TUBERCULOSIS HOSPITALS.

New Jersey is upholding her reputation for progressiveness by taking the lead among the states in caring for tuberculosis patients. Ever since the International Congress on Tuberculosis, held in Washington five years ago, the campaign against the disease has been directed towards the establishment of hospitals for the segregation of advanced cases in order that they may not infect others. New Jersey decided that the way to secure hospitals is to build them without wasting time in idle talk. Accordingly, in 1912, a law was passed requiring the Board of Freeholders in each county to provide hospital facilities for tuberculosis patients.

In some instances hospitals had been built or planned before this law was enacted. At the present time, less than one year after the law became effective, plans are being made for hospitals in nearly all counties in the state. The activities of the various counties may be summed up as follows: Essex, Hudson and Union counties each has a hospital in operation. Mercer and Passaic counties have arranged for the care of county patients in the Trenton and Paterson hospitals respectively. Camden and Morris counties have hospitals under construction which will be opened before the close of the present year. Bergen, Gloucester, Monmouth and Middlesex counties are locating sites for hospitals. Cape May and Burlington counties are planning to use hospitals already built for other purposes. Ocean county has voted money to pay for the care of tuberculosis patients elsewhere. Atlantic county has secured permission to use the Camden county hospital temporarily till further arrangements can be made. Somerset and Hunterdon counties have committees appointed to consider the matter. Salem, Sussex, Warren and Cumberland counties have not as yet taken any action. The State Board of Health has the enforcement of the law and hopes that these four counties will speedily fall in line.

These excellent results are even more gratifying when we consider that hospitals in the five counties first named—Essex, Hudson, Union, Mercer and Passaic, are now serving sixty per cent. of the population of the State. When the Camden and Morris county hospitals are completed in the Fall, sixty-nine per cent of the population will then receive service. From present indications it is confidently expected that within two years, Bergen, Gloucester, Monmouth, Middlesex, Atlantic, Cape May Burlington and Ocean counties will be caring for tuberculosis patients which will provide service for ninety-one per cent. of the population of the state. If Hunterdon and Somerset counties succeed in building hospitals in the same time, ninety-four per cent. of the population will then have county hospital service. Assuming that all these plans will be carried out, the end of 1915 will see less than six per cent. of the population of New Jersey without access to a public county hospital in case they should become tuberculous.

Of course all residents of the state who are afflicted with the disease have access to the State Sanatorium at Glen Gardner if the diagnosis is made in the early stages. It is believed that no other state in the Union can show such remarkable results in so short a time in providing for the care of tuberculosis patients.

In its work of enforcing the compulsory hospital law, the State Board of Health has encountered many obstacles. A Board of Freeholders may have difficulty in financing a new institution on short notice. In some counties the change from the large to the small board of Freeholders delays action on any plans for constructive work. The population of other counties is so small that some of them do not feel the necessity of providing for tuberculosis patients. There are four counties in the state having less than thirty-thousand population each. Everything considered, it is felt that the progress made so far in complying with the compulsory law is highly satisfactory.

Another feature of the campaign against tuberculosis must not be overlooked. For the present at least, the majority of tuberculosis patients must be cared for in their homes. In order to provide such care as is required every community should have a clinic or dispensary where patients who cannot afford to employ a physician may receive free treatment and advice. There should also be in each community a visiting nurse who can go into the homes of the patients and show them how to regulate their lives in such a manner as to reduce the danger of infecting those with whom they live. While working for the construction of hospitals in all the counties, the State Board of Health strongly urges all communities to provide clinics and nurses to prevent the spread of infection from patients that must be cared for in their homes.

THE CARE OF TUBERCULOSIS PATIENTS.

Under the provisions of Chapter 217 Laws of 1912 boards of chosen freeholders are required to establish hospitals for the care and treatment of persons suffering from tuberculosis.

Boards of freeholders are also given the power to contract with any regular incorporated society or municipality maintaining a hospital for any or all of the tuberculosis inhabitants in the county upon such terms and conditions as they may by agreement think proper.

The most interesting feature of this law lies in the fact that provision is made by which persons suffering from tuberculosis, who are a danger to those living around them and fail to observe the rules and regulations of the State Board of Health, may be committed to institutions fitted for their care. The cause for the removal of persons to such institutions is based upon the violation of the rules and regulations for the prevention and spread of tuberculosis which are laid down by the State Board of Health.

Section 9 of the law refers to this subject and reads as follows: "It shall be the duty of the State Board of Health from time to time to make rules and regulations for the care of persons suffering with tuberculosis, and for the prevention and spread of that disease; these rules shall be published and copies thereof sent to each board of health and to each practicing physician within the state, on or before the first day of April of each year, and to such other persons or societies as may request the same, and in such quantities as desired. The duty of enforcing said rules and regulations and seeing that they are enforced shall be upon the State Board of Health, for which purpose the State Board of Health may issue orders to local boards of health and practicing physicians."

Much thought and care was given to the drafting of the rules and regulations required by this section as the Board felt that the rules should be definite and reasonable. These rules and regulations have the force of law anywhere in New Jersey.

The rules and regulations adopted by the Board are as follows:

RULES AND REGULATIONS.

1. All persons suffering from pulmonary tuberculosis (consumption) shall effectively destroy their sputum (spit).

2. All persons suffering from running sores due to any form of tuberculosis shall burn all soiled dressings immediately after removal.

3. The room occupied by a tuberculosis patient shall have at least one outside window.

4. No persons suffering from pulmonary or other communicable form of tuberculosis shall handle food designed for the use of others except when necessary in the performance of household duties, unless the food be wrapped in such a way as to protect it from contamination or unless some necessary subsequent process of preparation such as cooking will sterilize it and prevent its carrying infection to the consumer.

5. The manufacture of any kind of goods for commercial purposes or the performance of any work known as "shop work" in the home of any person suffering from pulmonary or other communicable form of tuberculosis, is prohibited, unless the product is such as can be sterilized, and unless sterilization is done in strict accordance with the requirements of the local board of health.

RELEASE OF FROZEN EGGS FROM COLD STORAGE.

In the Spring of 1913 application was made to the State Board of Health by the H. J. Keith Company for permission to remove from storage in the warehouse of the Merchants Refrigerating Co., Jersey City, a quantity of frozen eggs. Misleading statements have appeared in the press and various magazines regarding the action of Board in this matter, and therefore, the following statement of the case is made so that the facts relating to it may be presented.

In 1910 a seizure was made by representatives of the United States Department of Agriculture of over three hundred cans of frozen eggs which had been shipped by the H. J. Keith Company to New York. An action was begun by the Federal authorities against the company for having in their possession a product which was in violation of the Federal Statute in that it consisted in whole or in part of a filthy decomposed, putrid animal or vegetable substance. This case was tried in the United States District Court at Trenton, before Judge Joseph Cross. Experts appeared for both the complainant and the defendant.

After the case was heard the opinion rendered by Judge Cross was in favor of the defendant. The case was then appealed to the United States Court of Errors in which Court the decision of the lower Court was reversed. The case was then carried to the Supreme Court of the United States and the opinion rendered in that Court was to the effect that the Court of Errors had no jurisdiction in the case. The final result, therefore, of the action was the sustaining of the opinion rendered by Judge Cross that the Federal Law in regard to the adulteration of eggs had not been violated.

The eggs had been placed in cold storage in 1910 remaining in storage until 1913. Upon the receipt of the demand by the Keith Company in 1913 for the release of the frozen eggs from cold storage, the State Board of Health directed that a series of experiments should be conducted in the Laboratory of Hygiene for the purpose of determining whether there had been any change in the condition of the eggs since the time they were placed in cold storage.

Extensive experiments were undertaken in the Laboratory consisting of physical, chemical, and bacteriological examinations of samples taken from six of the cans of eggs which had been selected at random, and a number of feeding experiments were also made on members of the Laboratory staff, Parallel comparative experiments were made with fresh eggs.

The results of the chemical analysis showed that the Keith egg products did not differ materially from those obtained from fresh eggs. The bacteriological examination showed that although the bacterial count was higher than that obtained in fresh eggs, it did not differ materially from the bacterial count from samples of the eggs taken in 1910. The physicial examination to determine as to odor, taste and appearance gave no evidence of putrefaction or decomposition. The feeding experiments consisted in feeding to members of the Laboratory staff pies, custard, omelets, etc., made from the Keith egg products and also of controlled lots made from fresh eggs. Fifteen persons participated in these experiments. No ill effects were noticed by those consuming the preparations made from the Keith eggs and none of the staff could identify the articles from which the Keith product was made.

From these experiments it was apparent that the only difference between these egg products and the ones prepared from fresh eggs was a higher bacterial count of the Keith product.

As other investigators had been engaged in similar lines of experiments the Board summoned these parties for the purpose of learning the results of their experiments, before a final determination was made as to the release of the eggs from cold storage. At this hearing Dr. Crumbine, Secretary of the State Board of Health of Kansas, and Professor Sedgwick, of the Massachusetts School of Technology, appeared and the reports of the experiments made by them were practically identical with the results obtained in the New Jersey State Laboratory. It was determined by the Board that as the Federal authorities had not sustained their case against the Keith Company and the results of none of the experiments showed that this product was one that was either filthy, putrid, decomposed or unwholesome to grant a permit to the Keith Company to remove the three hundred and sixty-four cans of frozen eggs from the warehouse if the containers were properly labelled.

A full history of the case and a report of the experiments conducted in the Laboratory in relation thereto will be found in a report of the Bureau of Food, Drugs, Water and Sewerage.

SANITARY CONTROL OF ICE CREAM FACTORIES.

Under the supervision of the Division of Creameries and Dairies much has been accomplished to improve the sanitary conditions in establishments in which ice cream is manufactured. In this effort we have had the co-operation, for the most part, of the ice cream manufacturers and it has only been necessary to indicate the changes which should be made in factories to bring them under the requirements of the law.

Many of the serious defects which exist are the result of ignorance on the part of the manufacturer rather than intentional neglect. The campaign, therefore, of the Board has been one of education as we feel that an industry of this character should be controlled and not destroyed.

The Board has always insisted that the materials which are used in the manufacture of ice cream shall be pure; that sanitary precautions shall be used in the process of manufacture and that approved methods of handling and storage are adopted.

Rules were adopted and issued by the Board last year covering the various requirements which were necessary and a copy of these rules were printed in the report of 1912. During the past year the Board has refused or revoked the licenses of forty dealers mainly on account of inadequate washing facilities and improper handling of the products while in the possession of the manufacturer.

In the inspections which have been made during the year the Board has been impressed with the grossly unhygienic practices which exist in some of the manufacturing rooms at the soda water fountains where ice cream is disposed. In these places the output is so small that the proprietors do not feel justified in making the plants sanitary. The utensils, glasses and dishes in which ice cream is served at some of these fountains are often improperly washed. It is deemed especially important that all places where ice cream is dispensed should be equipped with proper washing facilities and an ample supply of hot water.

When one considers the number of soda fountains at which ice cream is sold the impossibility of covering this field with the small number of inspectors in the employ of the Division of Creameries and Dairies will be appreciated. However, in so far as the force employed in this Department is available inspections of these places will be continued during the coming year.

The question of the advisability of adopting a standard of ice cream has been taken up by the Board as there is no standard of quality in New Jersey at the present time, the only requirements being that the ingredients shall be pure and wholesome and that the product shall not be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed.

When we consider that thirty-seven states in the Union have adopted definite standards or made rules and regulations regarding the quality of ingredients, we must reach the conclusion that some action should be taken in the near future in regard to this matter.

In New Jersey, as in other states, there are dealers making ice cream out of milk, skimmed milk and jelatine which costs the consumer the same amount of money as an article made from twenty per cent. cream without the addition of cheaper ingredients. We believe that not only should regulations be adopted which require that ice cream be of a certain standard of purity and harmlessness, but that the consumer should have some guarantee that the article sold to him is made from proper ingredients.

The Board had under consideration the adoption of the standards of the Federal Government which require that ice cream shall be "a frozen product consisting of clean cream containing fourteen per cent. of butter, fat, sugar and harmless coloring matter." The Board has felt that before final adoption of the standard there should be a free discussion as to whether the standard is a fair one to apply to our State, and it is probable that before its final adoption, conferences will be held with the representatives of the industry for the purpose of reaching some definite conclusion as to the standard which should apply to New Jersey.

THE CLAM INDUSTRY.

Until last year little was known of the conditions of the clam industry in New Jersey. As a legislative act gives the State Board of Health the power to regulate the conditions under which oysters, clams and shell fish are handled and prepared for market, a special investigation was made and the following information was obtained:

The center of this trade is Highlands, Monmouth County, a small borough situated on the south side of Prince's Bay and east of the Shrewsbury River. The clams which are gathered in nearby waters are opened, and strung upon strings holding twenty-five clams each. The clams are finally shipped to market in barrels. One-half dozen shippers buy up the clams and make the shipments.

The clams gathered by the men from the bay are opened by women and children in the homes. This work is performed in the kitchens of the houses. After being opened the clams are placed in tubs of water then tied in bunches, placed in another tub of water and carried in these tubs through the streets to the shipper.

In warm weather cracked ice is used in the shipping barrels to prevent decomposition of the clams while in transit as the fermentation begins rapidly when the atmospheric temperature is high.

Many of the dwellings in which the clams are opened are small badly constructed houses. In most instances they were overcrowded and dirty. The town has no system of sewerage and open privy vaults are located in close proximity to many of the houses. Flies breed in the privy vaults and in the heaps of clam shells which accumulate outside of the houses.

The results of the investigation indicated the necessity of prompt regulation of this industry, and rules and regulations were drafted for this purpose. Before the final adoption of these rules and regulations a public meeting was held at Highlands, to which those connected with the industry were invited. Each rule was read and fully discussed, and with some minor changes, met with the approval of those present at the meeting.

The rules and regulations are as follows:

RULES REGULATING THE PREPARATION OF CLAMS FOR MARKET.

1. All rooms and buildings in which clams are opened must have tight floors and smooth side walls, and an adequate supply of clean water, and suitable facilities for the disposal of waste water. The floors, side walls, ceilings, furniture, receptacles and implements of every establishment or place, where clams intended for distribution or sale are opened, shall at no time be kept in an unclean or an unsanitary condition. During the fly season all doors and windows shall be provided with screens.

2. No person or persons shall be allowed to live or sleep in any room where clams intended for sale or distribution are opened or packed.

3. Waste materials must not be permitted to accumulate in the vicinity of places where clams are opened and must be removed daily.

4. No privy vault will be permitted within five hundred feet of any building wherein clams are opened, unless properly constructed and screened.

5. Small children and domestic animals must be kept out of the rooms wherein clams are opened.

6. The soaking of shucked clams in fresh or salt water is prohibited. Clams may be washed in clean water before shipping.

7. Clams must not be packed for shipment in contact with ice. All containers in which clams are packed for shipment must be clean and constructed of such materials and in such a manner as will enable them to be readily cleansed.

8. All clams intended for distribution or sale, shall during the process of preparation or packing, be securely protected from flies, dust and dirt, and by the use of all reasonable means from all other injurious contamination.

9. Clams must be shipped the same day they are opened, unless stored in an adequate cooling room or thoroughly iced.

10. Shuckers must be cleanly in their habits and must provide themselves with suitable garments which can be kept clean.

11. No shuckers with infectious wounds in the hands or arms shall be permitted to open clams nor to handle the same. Clean cuts which are not infected shall be covered with rubber cots securely fastened.

12. An abstract of the rules and regulations of the State Board of Health shall be posted in a conspicuous place in every room where clams are opened, packed, handled or stored.

13. These rules shall take effect May 1, 1913.

PUBLIC WATER SUPPLY OF TRENTON.

During the Legislative Session of 1913 a resolution was introduced in the Senate by the Senator from Mercer County requesting the State Board of Health to make a report upon the water supply of the City of Trenton. The report was prepared and presented to the Legislature on Feb. 25, 1913.

As the history of the efforts made by the State Board of Health to secure for the city a safe and potable water supply is of especial interest, portions of the report are herewith presented.

"Since 1896 the State Board of Health has been engaged in investigating the quality of the water supplied to the citizens of Trenton. This investigation was begun because of the high typhoid fever death rate of Trenton, a condition frequently associated with a polluted public water supply. In 1889 the first act was passed giving to the State Board of Health a limited supervision over sources of public water supplies. It appears from the reports of the Board, that in 1899, because of an outbreak of typhoid fever in Trenton, the Board called to the attention of the city officials the unsatisfactory condition of the water, and that the municipal authorities in 1900, employed Mr. Allen Hazen, a sanitary engineer, to examine into the condition of the city water supply and to report upon a plan for the improvement of its quality. Mr. Hazen reported in November, 1900, that the water was dangerously polluted, and recommended the construction of a filtration plant. No filter plant was built.

The high typhoid death rate continued in Trenton, as had been predicted by the State Board of Health and by Mr. Hazen. In 1907 the Board made a systematic survey of the Delaware River and its tributaries. Numerous analyses of the water were also made, and the Board, basing its statements upon the results of these inspections and anlyses, again called the attention of the Board of Water Commissioners to the dangerous character of the City water. Nothing was done at that time by the city authorities to remedy existing conditions. In 1908 inspections were again made on the Trenton watershed and numerous pollutions were discovered and abated by the State Board. The Board, also, through the Attorney General, began injunction proceedings against the City of Phillipsburg for disobeying the order of the State Sewerage Commission to cease polluting the Delaware River. This case is still before the Court of Chancery, and, pending its decision, the work of the Board in attempting to clean up other sources of pollution along the Delaware has been delayed. The Board has endeavored to co-operate with the authorities of New York and Pennsylvania in securing the abatement of pollutions of the Delaware entering from those states and substantial progress has been made, although it will be many years before this work is completed.

In 1909 another act was passed (Chap. 253, Laws of 1909), giving the Board more power to protect public water supplies. Acting under the provisions of this law, the Board, on December 21, 1909, issued an order to the Mayor and Council of Trenton, to show cause why the Board should not apply for an injunction to restrain them from continuing to deliver polluted water to the citizens of Trenton. This order the city authorities met with a request for further time in which to arrange for the purification of the water, and later the State Board fixed June 15, 1910, as the date on or before which purification must be accomplished. The city authorities having failed to take action by that date, on June 16, 1910, the matter was referred to the Attorney General for action. He took the matter up with counsel for the City of Trenton, and upon representations by said counsel that the city authorities intended to obey the orders of the State Board the matter was held for time in abeyance.

In 1911 an attempt was made by the authorities of Trenton to secure the passage of an act which would enable the city to meet the cost of a filtration plant. This act after having been once passed was recalled from the Governor and finally failed of passage on the last day of the legislative session.

Later in 1911 plans for a hypochlorite disinfecting plant were submitted by the city authorities and approved by the State Board of Health *as a temporary measure to be used until a filtration plant could be constructed.* Considerable time elapsed before this plant was completed, and it was not put into operation until November, 1911, at which time an epidemic of typhoid fever was occurring in Trenton.

The effect of the hypochlorite treatment was immediately noticed. Within three weeks after the beginning of the treatment the outbreak was checked, and since that time there has been much less typhoid in Trenton than ever before. In 1912 plans for a filtration plant were submitted to the Board by the Trenton authorities and were approved on October 22d. This plant is now being constructed.

The use of calcium hypochlorite for the sterilization of water is of recent origin, extending back only about eight years, but its application has been so successful, both as a temporary expedient and as a final treatment after filtration, that it is now in use in a great many places in this country and Europe. The method, while exceedingly efficient from a bacteriological standpoint, has its disadvantages, one of the most serious being the very objectionable tastes and odors which are imparted to the water if any considerable excess is used. There is no evidence to show that this substance, in the minute amounts in which it is ordinarily used in water, is harmful in any way. On the other hand, evidence is rapidly accumulating in many cities in this country to show that no ill effects follow the use of such water, even when its tastes and odors are very objectionable.

The amount of hypochlorite which is needed to destroy the pathogenic bacteria in water depends upon the composition of the water, and to a lesser extent upon the temperature. Calcium hypochlorite is a very unstable compound which reacts with the organic matter and with some of the mineral matter present in natural water. The more organic matter which the water contains, the more hypochlorite will be needed to secure adequate disinfection. In clear waters containing little organic matter, very small doses (0.2 to 0.4 parts per million available chlorine), are required to secure sterilization, while in heavily polluted water, such as sewage, from ten to thirty parts per million may be needed. It therefore follows that careful attention must be paid to the composition of the water, when disinfecting with hypochlorite, in order that sufficient disinfectant may be used to produce the bacteriological effects desired, while at the same time an overdose which would result in unpleasant tastes and odors in the treated water may be avoided.

The water of the Delaware varies greatly in composition during different seasons of the year. At times of the heavy rainfall the river is very turbid and carries much organic matter, while in dry seasons or in winter, during periods of cold weather, the water is clear and the amount of organic matter is much reduced. Its composition frequently changes markedly from day to day. If satisfactory disinfection of such a water is to be secured with the minimum of inconvenience to the consumer, it is evident that daily examinations of the water must be made and very careful attention paid to the dosage of hypochlorite.

While it is hardly possible to disinfect water from so heavily polluted a river as the Delaware with hypochlorite without occasionally causing tastes and odors, the Board believes that these should not prove serious if the dosage is carefully regulated.

At the time the hypochlorite plant was installed the city authorities had no facilities for making the chemical and bacteriological analyses which were necessary in order that the proper dose of hypochlorite might be established, and the State Board therefore, undertook these examinations temporarily, calling the attention of the City Commissioners to the necessity for securing the service of a competent bacteriologist to perform the constant analytical work required for the successful operation of the plant. The Commissioners did not see fit to adopt the suggestion of the Board but entrusted the supervision of the plant to the city chemist. Since the operation of the plant has been turned over to the city authorities, the Board, as a result of its own investigations, has found it necessary to repeatedly call the attention of the city authorities to the fact that it was not working properly. The examinations made by the Board after the operation of the plant was turned over to the city were solely for the purpose of ascertaining whether or not a sufficient amount of hypochlorite was being used to properly disinfect the water, and no attempt was made to fix the upper limit of the dose, this being considered the function of the city chemist. In all probability the cause of the recent taste and odor in the water was due to the sudden onset of cold weather which caused the ground to freeze, stopping to a great extent the surface runoff, this lowering the organic matter and turbidity. This reduction of substance which reacts with hypochlorite, together with the lowernig of the temperature which slows the reaction and renders it less effective, resulted in the water receiving a temporary overdose of hypochloride which manifested itself at once by its taste and smell.

If the filtration plant now under construction is properly operated when completed, no difficulty will be experienced with tastes and odors, even if it is found necessary to use hypochlorite for final disinfection. The hypochlorite will then be added to the filtered water, from which all of the turbidity and much of the organic matter will have been removed, and the dose required will be so small as to be entirely inappreciable to the senses.

The Board wishes to make it perfectly clear at this time that they have no apologies to offer for approving the use of hypochlorite in the city water of Trenton. In the performance of their duty to protect the public health, no other course was open to them. At the time the hypochlorite plant was installed it was needed to protect the people of Trenton from typhoid fever. It is needed for that purpose now. Its use will continue to be necessary until the filter plant now under construction is completed and in operation. The Delaware River is a dangerously polluted stream at all seasons of the year, and the Board would be neglecting its plain duty if it permitted untreated water from such a stream to be used for potable purposes. For the objectionable tastes and odors which now occur in the water, the people of Trenton are themselves responsible. For seventeen years the State Board of Health has been calling to their attention the dangerous character of their water supply. Twelve years ago Mr. Allen Hazen, one of the foremost sanitary engineers of the country, after thoroughly investigating the matter, proposed a remedy, which, if it had been adopted would have given Trenton a satisfactory water supply, and would have resulted in the saving of hundreds of lives and several hundred thousands of dollars. Had there been any active public sentiment in favor of pure water in this city, the Board of Water Commissioners would have found it impossible to have maintained the policy of inactivity to which they so consistently held, and which has resulted so disastrously. For the past twenty years at least, the water supplied to the citizens of Trenton has been a disgrace to the community. It is still very objectionable, although reasonably safe since the use of hypochlorite was begun, and it will continue to be more or less objectionable until the filter plant now building is put into operation or some other source of water is secured.

THE FILING OF PLANS FOR SEWERAGE AND WATER SYSTEMS.

It is unlawful in New Jersey for any persons, corporation or municipality to build a sewer, drain or sewerage system or to install a purification plant for the purification of water intended for potable purposes without the approval of the State Board of Health. Laws governing this subject were passed in 1900. Experience with the requirements of these laws indicated that there was upon the part of sanitary engineers an indefinite conception of the manner in which plans should be prepared and submitted to the State Board of Health for approval.

Considerable time and thought were given to the preparation of the rules and regulations by the Board relating to the filing of plans, it being the desire of the Board to secure uniform procedure and to avoid the filing of the plans in such a manner as to necessitate modifications and duplications of the plans.

Before the adoption of the rules and regulations they were submitted to a number of eminent sanitary engineers and many valuable suggestions made by them were incorporated. Since the publication and distribution of the rules most favorable comments have been received from sanitary engineers throughout the country, and in engineering journals attention has been directed to the value of placing in the hands of those who are preparing plans for sewerage and water purification systems such explicit directions for their guidance.

SEWERAGE SYSTEMS AND SEWAGE PURIFICATION WORKS.

Chapter 72 of the Laws of 1900, and the supplements and amendments thereto, provide that it shall be unlawful for any person, corporation or municipality to build any sewer, drain or sewerage system from which it is designed that any sewage or other harmful and deleterious matter, solid or liquid, shall flow into any of the waters of this State, so as to pollute or render impure said waters, except under such conditions as shall be approved by the Board of Health of the State of New Jersey. The provisions of this section do not prohibit the use or extension of existing sewers, drains or sewerage systems, unless the persons, corporation or municipality controlling said sewer, drain or sewerage system shall be served with a notice to cease pollution as provided by the fifth section of the act.

RULES AND REGULATIONS.

The following rules and regulations have been adopted by the Board of Health of the State of New Jersey, embodying the requirements with which all applicants for the approval of designs for sewerage and sewage purification systems and extensions thereof should comply before such applications are submitted to the Board of Health of the State of New Jersey:

SUBMISSION OF PLANS.

1. Plans shall be submitted to the Board for examination, at least two weeks prior to the date upon which action by the Board is desired. From this it is not to be inferred that action by the Board will always be taken within the time mentioned.

INFORMATION REQUIRED.

2. The plans for a complete sewerage and sewage disposal system shall include the following:

A general map of the municipality or sewerage district.

Profiles of all sewers proposed.

Details of construction of manholes, flush tanks, and special structures pertaining to the sewers.

General and detailed plans for disposal works.

A comprehensive report upon the proposed system by the designing or consulting engineer. This report to be typewritten upon letter-size paper, and the sheets firmly bound together.

A preliminary report, containing data and information sufficient for the complete understanding of the project may be submitted to the State Board of Health for their consideration, prior to the submission of detailed plans.

MAP OR GENERAL PLAN.

3. (a) The general plan referred to in paragraph two (2) shall be drawn to a scale not greater than 100 nor less than 300 feet to 1 inch, and shall show the entire area of the municipality or district. If the municipality is greater than two (2) miles in length the map may be divided into sections, conforming in size to those mentioned in section 7 of these rules. The sheets shall be bound together and a small index map supplied, showing by number the area covered by the various sheets. A general plan shall accompany each application in the case of a new sewer system or any extension or modification of any existing sewer system unless such general plan has already been submitted.

DETAILS OF MAP.

(b) This plan shall show all existing or proposed streets, the surface elevations at all street intersections, and contour lines at intervals of not more than 10 feet.

If it is intended to defer the construction of sewers in some of the streets, the plan shall show that sewerage facilities are provided for all such sections of the municipality or sewerage district. The plans shall also clearly show the location of all existing sewers, either "separate" or "combined," the location of the disposal works, and the location of existing and proposed sewer outlets or overflows. The true or magnetic meridian, the town or borough lines, title, date, scale, direction of flow and average water elevation of the stream shall also be clearly shown. The elevation of the highest known freshets at the outlets and site of the disposal plant shall be given. Any area from which sewage is to be pumped shall be shown by light shading, coloring or other distinctive marks.

LETTERING, LINES AND SYMBOLS.

(c) Letters and figures shall be clearly and distinctly made. Sewers to be built at present shall be shown by solid lines, and sewers to be constructed later shall be shown by a line of dashes, as - - - - - - -. Existing sanitary sewers shall be shown by the following symbol, ..., and combined sewers by a dot and dash, .—.—. All topographical symbols used are to be the same as those of the United States Geological Survey.

ELEVATIONS.

(d) Elevations of the surface of the streets should be placed outside the street lines in the upper right angle, or opposite their respective positions in the street. The elevations of sewer inverts should be shown at street intersections, ends of line, and wherever a change of grade occurs. The elevations of the sewer shall be written close to the point to which they refer, parallel with the sewer line an between the street lines. The elevations of surface shall be shown to the nearest 1-10 foot; those of the sewer invert to the nearest 1-100 foot. The sizes and gradients of all proposed and existing sewers shall be marked along the line of the sewer.

SEWER APPURTENANCES.

(e) All sewer appurtenances and unusual features, such as manholes, lampholes, flush tanks, siphons, pumps, etc., shall be designated on the plans by suitable symbols and referenced by a legend near the title.

PROFILES.

4. Profiles of all sewers over 8 inches in diameter and of all 8-inch sewers, where gradients less than that given below are used, shall accompany the application. Profiles of all sewers must be approved before they are constructed.

Profiles of sewer lines shall be prepared and drawn to such a scale as to clearly show the structural features of the sewer. For ordinary use, the following scales are suggested: Vertically, 10 feet to 1 inch. horizontally, 100 feet to 1 inch. Both scales must be clearly shown upon each sheet. Upon these profiles shall be shown all manholes, flush tanks, lampholes, siphons, and stream crossings, with elevations of stream bed and normal water. Figures showing the sizes and gradients of sewers, surface elevations, sewer inverts, etc., should be shown with the same frequency as required for the map.

GRADES, ETC.

The following gradients for sewers flowing half full are suggested as minimum grades for ordinary use, as with careful construction a theoretical velocity of approximately two feet per second can be obtained:

Size of pipe.	Fall in feet per 100 feet of sewer.
8 inches,	0.40 feet
10 inches,	0.29 feet
12 inches,	0.22 feet
15 inches,	0.16 feet
18 inches,	0.12 feet
20 inches,	0.10 feet
24 inches,	0.08 feet

The sewers should have a capacity when flowing half full sufficient to carry twice the future average flow twenty-five years hence, plus a sufficient allowance for ground water infiltration.

When grades lower than those given are used, an explanation and reasons for the use of such grades should be included in the engineer's report. On each sheet of profiles must be given, under the title, an index of the streets appearing on that sheet. Profile sheets shall be numbered consecutively.

DETAIL PLANS.

5. Detail drawings of sewer sections except where terra cotta or iron pipe is used, and of all sewer appurtenances, such as manholes, lampholes, flush tanks, inspection chambers, siphons and any special structures, shall accompany the general sewer plans.

The detail plans shall be drawn to such a scale as to show suitably and clearly the nature of the design and all details, such as manhole frames and covers, iron pipes, valves, gates, etc.

DISPOSAL WORKS.

6. The plans for the disposal works shall include a general plan upon which reserve areas or future extensions are clearly shown, and detail plans of the various units and structures which comprise the plant.

A weir or other measuring device shall be provided at some convenient point, and the installation of a recording device is recommended, and in particular instances may be required.

DETAIL PLANS.

The detail plans shall show longitudinal and transverse sections sufficient to explain the construction of each unit. They should also show the distributing and drainage systems, general arrangement of any automatic devices, sizes of stone, gravel, or sand used as filtering material, and such other information as is required for the intelligent understanding of the plans.

DRAWINGS.

7. All drawings submitted shall be neatly and plainly executed and may be traced directly on tracing cloth, printed on transparent cloth, or printed on any of the various papers which give distinct lines. All prints shall be clear and legible.

SIZE OF DRAWINGS.

With the exception of the map, the following dimensions are suggested for ordinary use: Distance from top to bottom, 20 or 30 inches; length, 24 inches, 32 inches, 40 inches or 48 inches, or thereabouts. By this section it is intended to prevent the use of long profiles and unnecessarily large maps, which are difficult to file or to use.

TITLE.

Each drawing shall have legibly printed thereon the name of the town or persons for whom the drawing is made, the name of the engineer in charge, the date, the scale, and such references in the title as are necessary for the complete understanding of each drawing.

ENGINEER'S REPORT.

8. A report, written by the designing or consulting engineer, should accompany all plans for complete sewerage systems, and shall give all data upon which the design is based, such as:

INFORMATION CONCERNING SEWER SYSTEMS.

(a) The nature and extent of the area which it is proposed to include within the present system of sewerage, and of the area which it is planned shall ultimately drain into this system.

(b) The population to be served, both present and estimated for twenty-five years hence.

(c) The estimated per capita daily flow of sewage to be cared for.

(d) The total and per capita water consumption of the town at the present time.

(e) The allowance made for leakage into the sewers.

(f) The estimated daily flow of sewage, including leakage.

(g) The character of the sewage (whether domestic or including manufacturing wastes, and in case of the latter, the nature and approximate quantity of the same stated in specific terms).

(h) Method of flushing or periodically cleaning the sewers.

(i) That portion of the sewers to be built at the present time.

(j) The minimum grades of sewers for each size used.

(k) If there are sections which cannot drain into this system, the extent of such sections and the probable future disposition of the sewage from these sections.

(l) Distance of sewer outlet from shore and depth of water at mean tide at outlet if outfall discharges into ocean or large stream.

A list of bench marks or fixed elevations should be included in this report.

INFORMATION CONCERNING DISPOSAL PLANT.

With regard to the disposal plant, the engineer's report shall cover the following subjects:

(a) The method of disposal to be adopted and a description of the units of the system.

(b) The rate of working of each unit.

(c) If disinfection is to be used, the name of the disinfecting substance, the quantity per million gallons of sewage and the method of application.

(d) The nature of the body of water into which the effluent discharges, with particular reference to the run-off during dry weather.

(e) The disposal of sludge.

(f) All conditions peculiarly characteristic of the locality and which in any way affect the design of the system.

(g) Special devices used in connection with the disposal system.

(h) Special methods of maintenance or operation of the system.

(i) The results expected from the purification system.

(j) Explain any provisions for reserve units in pumping plants, pipe lines, filters, etc.

SPECIFICATIONS AND ESTIMATE OF COST.

9. Specifications for the construction of the system of sewers and sewage disposal works and an estimate of the cost of the same shall accompany all plans for new or original systems. With plans for extensions of existing systems, specifications may be omitted provided that these extensions are to be constructed in accordance with specifications filed previously with original plans.

EXTENSIONS OF PRESENT SYSTEMS.

10. If the plans are solely for the extensions of an existing system, then only such information as is necessary for the comprehension of the plans will be required. This information must in general conform to the above requirements for a complete system.

GENERAL REQUIREMENTS. APPLICATION FOR APPROVAL.

11. The application for approval of plans shall be made by the proper municipal authorities, persons for whom the work is to be done, or their properly authorized agents, upon blank forms which will be supplied by the Board.

SYSTEMS ON SEPARATE PLAN.

Under ordinary circumstances the Board will approve such plans only when designed upon the separate plan, in which all rain water from roofs, streets and other areas and all ground water other than unavoidable leakage, is to be excluded.

BY-PASSES.

No by-passes which may allow raw or partly purified sewage to be discharged from the sewers or disposal works shall be included in the plans, except by special permission of the Board.

DEVIATION FROM APPROVED PLANS.

NO DEVIATION FROM APPROVED PLANS SHALL BE MADE, unless amended plans, showing such proposed changes, have been submitted to and approved by the Board.

WATER SUPPLY AND WATER PURIFICATION SYSTEMS.

Chapter 253 of the Laws of 1900, and the supplements and amendments thereto, provide that:

"Every person or corporation desiring to install a purification plant for the purification of water intended for potable use, shall submit detailed plans and specifications for such purification plant to the Board of Health of the State of New Jersey, and such plant shall not be constructed or operated until the aforesaid plans and specifications shall have been approved by the Board of Health of the State of New Jersey."

"The word 'person,' as used in this act, shall be construed so as to mean any firm or co-partnership, and the word 'corporation' to include any municipal corporation."

RULES AND REGULATIONS.

The following rules and regulations have been adopted by the Board of Health of the State of New Jersey, embodying the requirements with which all applicants for the approval of designs for water supply and water purification systems and extensions thereof, should comply before the application is submitted to the Board of Health of the State of New Jersey:

SUBMISSION OF PLANS.

1. Plans shall be submitted to the Board of Health of the State of New Jersey for examination at least two weeks prior to the date upon which action by the Board is desired. From this it is not to be inferred that action by the Board will always be taken within the time mentioned.

INFORMATION REQUIRED.

2. The plans for a complete water supply and water purification system shall consist of the following parts:

A general plan of the municipality or district, showing the proposed system.

Detailed drawings showing construction of any special structures in the distribution system.

General and detailed plans for the water purification works.

A comprehensive report upon the proposed system by the designing or consulting engineer. This report to be typewritten upon letter-size paper, and the sheets firmly bound together. A preliminary report, containing data and information sufficient for the complete understanding of the project may be submitted to the State Board of Health for their consideration, prior to the submission of detailed plans.

GENERAL PLAN.

3. (a) The general map referred to in paragraph 2 shall be drawn to a scale not greater than 100 nor less than 300 feet to 1 inch, and covering the entire area of the municipality or district to be supplied with water, and shall accompany each application in the case of a new water system, or any extension or modification of any water supply or water purification system, unless such a general plan of the entire area has been previously submitted.

If the municipality is greater than two (2) miles in length, the map may be divided into sections, conforming in size to those mentioned in section 7 of these rules. The sheets shall be bound together and a small index map supplied, showing by number the area covered by the various sheets.

DETAILS OF MAP.

(b) This map shall show all existing or proposed streets, the surface elevations of all street intersections, and the elevations of the principal parts of the water system, such as water at the intake, in the reservoir or standpipe, etc. The map should show that water supply facilities can be provided for all sections of the municipality or district, even though the construction of pipe lines in some of the streets is to be indefinitely deferred. The location of intakes, valves, hydrants, reservoirs, pumps, standpipes and purification plant, and any special structures, shall be shown and referenced in a legend near the title. The size of pipes shall be written between the street lines and along the pipe. The map shall also show the true or magnetic meridian, title, scale, date, the municipal or district boundaries, the mean, low and high water elevations of water at the intake. If the site of the pumping plant is subject to flooding, the elevation of the highest known flood water must be given.

LETTERING, LINES AND SYMBOLS.

(c) Letters and figures shall be clearly and distinctly made. Pipe lines to be built at present shall be shown by solid lines and those to be later constructed shown by broken lines. All topographical symbols used are to be the same as those used by the United States Geological Survey.

ELEVATIONS.

(d) The elevations of the street intersections shall be placed outside the street lines in the upper right-hand angle or opposite their respective positions in the street.

DETAIL DRAWINGS.

(e) Detail drawings of all special appurtenances, such as blow-offs, siphons, intakes, conduits, reservoirs, collecting galleries, filters, etc., shall be submitted.

(f) Profiles of long conduits or pipe lines may be plotted to a convenient scale and shown on sheets of the sizes mentioned below.

PURIFICATION WORKS. GENERAL PLANS.

4. The plans for the purification works shall consist of a general plan upon which reserve areas or future extensions must be shown, and also the general layout of the various units of the process, together with the piping system.

DETAIL DRAWINGS.

The detail drawings shall include longitudinal and transverse sections sufficient to show the construction of each unit and part of the plant. They shall also show the distributing, drainage and cleansing systems, general arrangement of any automatic devices, sizes and depth of stone, gravel or sand used for filtering material, and such other information as is required for the intelligent understanding of the plans.

DRAWINGS.

5. All drawings submitted shall be neatly and plainly executed and may be traced directly on tracing cloth, printed on transparent cloth or printed on any of the various papers which give distinct lines.

SIZE OF DRAWINGS.

The following dimensions are suggested for ordinary use, with the exception of the general map: Distance from top to bottom, 20 or 30 inches; length, 24 inches, 32 inches, 40 inches or 48 inches or thereabouts. By this section it is intended to prevent the use of unnecessarily long or large maps, which are difficult to file or to use.

TITLE.

Each drawing shall have legibly printed thereon the name of the municipality or persons for whom the drawings are made, the name of the engineer in charge, the date, the scale, and such references in the title as are necessary for the complete understanding of each drawing.

ENGINEER'S REPORT.

6. A report, written by the designing or consulting engineer, shall be presented with all plans for complete systems, and shall give all data upon which the design is based or which is required for the complete understanding of the plans.

Where a purification or treatment plant is to be constructed, a measuring device shall be provided at some convenient point, and the installation of a recording device is recommended, and in particular instances may be required.

SOURCE OF SUPPLY.

If no purification process is provided, the nature and extent of the watershed, with special reference to its sanitary condition, shall be fully and explicitly discussed, together with proposed methods and regulations for the prevention of accidental or other pollutions,

Map of Watershed.

A small scale map of the watershed, showing the roads and the number and character of buildings, shall be included in the report. Other features which should be discussed in the report are: Storage capacity, average depth, general nature and area of the storage reservoir, liability of odors or tastes in supply, and removal of color, iron, or hardness.

Wells and Collecting Galleries.

If the water supply is to be taken from wells, describe the number, depth, size and construction of the same; method of pumping, capacity of pumps, kind of strainer used, nature of ground through which wells will be driven, and probable flow of the wells. If collecting galleries are to be used, describe their construction.

Information Concerning Purification Plant.

The following information is required respecting the purification plant: The method of purification and a description of the units of the system; the rate of operation of each of the systems; the rate of operation of each unit of the plant; if any chemicals are used, the nature and quality of each with a description of the appliances for adding the same to the water; a description of all conditions peculiarly characteristic of the water or locality which in any manner affect the design or operation of the system; a description of all special appliances used, any special method of maintenance of operation of the plant, and the extent of purification expected or guaranteed.

If for purposes of fire protection it is necessary to provide by-passes, by which partly treated or raw water can be turned into the mains, they shall have valves upon them of such a character that they may be properly sealed by the State Board of Health. These valves shall not be opened except in accordance with the provisions of Chapter 317, Laws of 1912.

The report should further include a description of the nature and extent of the area to which it is proposed to supply water, or which will ultimately be supplied from the system, the quantity of water to be supplied daily, and the population to be served, the portion of the system to be constructed at present and the minimum depth of pipe below the surface of the ground. A description of any provision for future units of pumping plants, filters, etc., should be given.

Unsupplied Districts.

Should there be areas in the municipality or district which, on account of topography or for other reasons cannot be supplied with water, a definite statement to this effect must be made and the probable future supply of this omitted territory should be discussed.

Specifications.

7. Specifications and an estimate of the cost for the construction of water supply and water purification systems shall accompany all plans for new or original systems. With plans for extensions of existing systems or plants, specifications may be omitted, provided that these extensions are to be constructed in accordance with specifications filed with the original plan.

Extensions of Present Systems.

8. If the plans are solely for the extension of the existing system, only such information as is necessary for the comprehension of the plans will be required. This information shall, in general, conform to the above requirements for a complete system.

General Requirements. Application For Approval.

9. The application for approval of plans shall be made by the proper municipal authorities, persons for whom the work is to be done, or their properly authorized agents, upon blank forms, which will be supplied by the Board.

Deviation From Approved Plans.

NO DEVIATION FROM APPROVED PLANS SHALL BE MADE, unless amended plans, showing such proposed changes, have been submitted to and approved by the Board.

Samples of Water to be Analyzed.

The Board will collect and analyze samples from all public water supplies at regular intervals as required by law. Requests for the analysis of special samples should be made to the Board in writing, as samples will not ordinarily be examined unless collected by representatives of the Board.

MARITIME QUARANTINE AT THE PORT OF PERTH AMBOY.

The growing importance of Perth Amboy as a port of entrance for coastwise and foreign vessels makes more and more necessary the guarding of the port by competent health officers against the introduction of diseases. This port is so located that vessels from foreign ports may enter directly from the sea without going to the quarantine station in New York.

The Maritime Quarantine Act of 1900 is comprehensive in its nature and provides for the appointment by the Governor of the State of a health officer of the Port and also an assistant health officer. Under a Federal statute power is given to the United States Public Health and Marine Hospital Service to establish and maintain quarantine in certain ports, and as the port of Perth Amboy is regarded of such importance in the general line of protection which has been instituted by the Federal authorities, an officer representing the Marine Hospital Service has been stationed at this port. There are, therefore, at the present time two health officers at Perth Amboy, one representing the Federal government and the other the State government.

At one time an effort was made to transfer the supervision by the State of this port to the Federal authorities. An application was made to the Attorney General of New Jersey for an opinion as to the duties of the health officer appointed by the State of

New Jersey. In this opinion it is clearly stated that certain duties devolve upon the State officer of the port and while these duties may be coincident with the duties of a Federal officer it is improper for the State officer to delegate his duties to the Federal officer or to any one else or rely upon their reports for his information. The State officer should perform the duties required of him by the statute even though they may be duplicated by the activities of the United States Marine Hospital Service.

At the present time Dr. G. W. Fithian is the health officer of the port of Perth Amboy. Prior to 1906 the bills for the salaries of the health officer of Perth Amboy and his deputy were approved by the State Board of Health and then forwarded to the Comptroller of the State. In 1906 a supplement to this act was passed, see page 177, Public Health Laws of 1906, which fixed the salaries of the health officer of the port and his deputy and directed that such salaries be paid in monthly installments by the Comptroller of the Treasury of the State of New Jersey, and also required that the accounting in full of all fees collected each month should be presented to the Treasurer of the State. The Governor of the State, therefore, has the appointmnt of the health officer of the port and his salary accounts are audited by the Comptroller of the State. The relation which the State Board of Health bears to the enforcement of this law is therefore merely one of supervision.

As there is no equipment at the port of Perth Amboy for the fumigation of vessels upon which cases of communicable diseases may occur, an arrangement has been made with the health authorities of New York by which vessels upon which there are cases of contagious diseases or vessels needing fumigation on account of the occurrence of contagious diseases are sent to the port of New York for the detention of infected passengers and the disinfection of the vessels. An arrangement has also been made by which the Federal health officer inspects all incoming vessels from foreign ports and the representative of the State gives special attention to vessels coming from coastwise ports.

The report made by Dr. Fithian to the Board for the year ending October 31, 1913, shows that because of the unsettled condition of affairs in Mexico the number of vessels entering the port of Perth Amboy from that country has been somewhat reduced.

During the year one hundred and thirty-nine vessels have been examined for the purpose of learning the sanitary condition of the vessels, and the health of crews and the condition of cargoes. Eighty-one of these vessels were from foreign ports and fifty-eight were coastwise vessels. Ninety-six of this number were steamships and forty-three sailing vessels. The total receipts forwarded to the Treasurer of the State for the inspection of these vessels were $522.50.

The health officer of the port considers that the protection given at this port is satisfactory and that it would be extremely difficult for cases of communicable diseases to enter the port under the present rigid methods of inspection. When an examination is made of the sanitary conditions of vessels entering the port the crews and passengers are mustered, examined and counted. Comparison is then made of the crews and passenger lists and manifest, and discrepancies in number noted and examined. Bills of health are examined. Inspections are made both above and below decks and a sworn statement of the master is taken when it is deemed advisable as to the healthfulness of the crews and passengers during the voyage.

It is the belief of this Board that although the port of Perth Amboy is becoming such an important one that within a short time it may be necessary to extend the service, a fair measure of protection is given by the examination of all incoming vessels which is practiced at this port.

EXAMINATION OF HEALTH OFFICERS AND SANITARY INSPECTORS.

In several cities of the State commission forms of government have been established and as a result the applicants for positions to serve local boards of health as health officers or sanitary inspectors are required to take an examination before the State Civil Service Commission.

The original law which governs the examinations of applicants for licenses as health officers and sanitary inspectors requires that no persons other than clerical assistants shall be employed by local boards of health without first obtaining a license. The Civil Service Commission has, therefore, ruled that before a person living in a city which is under commission form of government applies to their board for a license he shall have obtained a license from the Board of Examiners appointed by the State Board of Health. It would appear that the requiring of an applicant to take two examinations for the same position is unwarranted, and that some arraignment should be made by which one of the two examinations should be omitted.

The regular examinations of applicants for licenses to serve as health officers and sanitary inspectors were held on December 4, 1912, and June 4, 1913.

At the December examination sixty-two persons presented themselves as applicants for licenses. Of this number fourteen desired licenses to serve as health officers; thirty-one as sanitary inspectors of the first class; five as sanitary inspectors of the second class; three as sanitary inspectors of the third class; six as plumbing inspectors and three as milk inspectors. As a result of this examination twelve health officers' licenses; seventeen licenses for sanitary inspectors of the first class; two for sanitary inspectors of the second class; two as sanitary inspectors of the third class; six for plumbing inspectors and one for milk inspector were issued.

At the examination held June 4, 1913, forty-eight applicants appeared for examination. Of this number thirteen were applicants for licenses as health officers; fourteen as sanitary inspectors of the first class; two as sanitary inspectors of the second class; three as sanitary inspectors of the third class; thirteen as plumbing inspectors, and three as milk inspectors. As a result of this examination licenses were issued to eight health officers; four sanitary inspectors of the first class; one sanitary inspector of the second class; thirteen plumbing inspectors, and two milk inspectors.

It appears therefore that one hundred and ten persons were examined and that of this number sixty-eight received licenses and forty-two failed. This proportion of failures to pass the examination seems large, but it is due almost entirely to the fact that many of those who make application have no opportunity to obtain instruction in any institution in our State; that often they are without preliminary education or any previous training or experence in the administration of sanitary affairs.

The Health Officers' Association of the State has made a request to the State Board of Health that some instruction shall be given to prospective health officers, and also to those at present holding positions throughout the State, and a plan has been formulated so that during the year 1914 classes will be held in the State House for this purpose.

A complete list of those who obtained the licenses during the year ending October 31, 1913, will be found in another part of this report.

Respectfully submitted,

JOHN H. CAPSTICK, President,
JACOB C. PRICE, M. D., Secretary,
WILLIAM C. CHEW,
HERBERT W. JOHNSON,
RICHARD C. NEWTON, M. D.,
OLIVER KELLY.

Report of Secretary.

VITAL STATISTICS.

POPULATION.

The following table shows the estimated population of the various counties together with certain cities in New Jersey for the year 1912, and also the figures shown in the state and national reports of the census from 1880 to 1910 inclusive.

The tables presented in this year's report showing certain marriage, birth and death rates are based on the estimated population for the year 1912.

TABLE 1.—POPULATION OF THE COUNTIES OF NEW JERSEY AND OF MUNICIPALITIES HAVING 5,000 INHABITANTS OR OVER FOR THE CENSUS YEARS 1880, 1885, 1890, 1895, 1900, 1905, 1910 AND ESTIMATED POPULATION FOR 1912.

	1880.	1885.	1890.	1895.	1900.	1905.	1910.	1912.
Atlantic County...........	18,704	22,356	28,836	34,750	46,402	59,862	71,894	76,707
Atlantic City.........	5,477	7,942	13,055	18,329	27,838	37,593	46,150	49,573
Hammonton.........	....	....	....	....	....	....	....	5,390
Bergen County...........	36,786	39,880	47,226	65,251	78,441	100,003	138,002	153,202
Englewood.........	....	....	....	....	6,253	7,922	9,924	10,725
Garfield.........	....	....	....	....	....	5,092	10,213	12,261
Hackensack.........	....	....	6,004	7,282	9,443	11,098	14,050	15,231
Ridgewood.........	....	....	....	....	....	....	....	5,990
Rutherford.........	....	....	....	....	....	5,218	7,045	7,776
Burlington County........	55,403	57,558	58,528	59,117	58,241	62,042	66,565	68,374
Bordentown.........	5,334	5,857	5,090	5,176	4,110	4,073	4,250	4,321
Burlington.........	7,237	7,690	7,264	7,844	7,392	8,038	8,336	8,455
Camden County...........	62,942	76,685	87,687	100,104	107,643	121,555	142,029	150,219
Camden City.........	41,659	52,884	58,313	63,467	75,935	83,363	94,538	99,008
Gloucester City.......	5,347	5,966	6,564	6,225	6,840	8,055	9,462	10,025
Cape May County........	9,765	10,744	11,268	12,855	13,201	17,390	19,745	20,687
Cumberland County.......	37,687	41,982	45,438	49,815	51,193	52,110	55,153	56,370
Bridgeton.........	8,722	10,065	11,224	13,292	13,913	13,624	14,209	14,443
Millville.........	7,660	8,824	10,002	10,466	10,583	11,884	12,451	12,678
Vineland.........	....	....	....	....	....	....	....	5,558
Essex County...........	189,929	213,764	256,098	312,000	359,053	409,928	512,886	554,069
Bloomfield.........	....	....	7,708	8,093	9,668	11,668	15,070	16,431
East Orange.........	....	....	13,282	17,927	21,506	25,175	34,371	38,049
Irvington.........	....	....	....	3,388	5,255	7,180	11,877	13,756
Montclair.........	....	....	8,656	11,753	13,962	16,370	21,550	23,622
Newark.........	136,508	152,988	181,830	215,806	246,070	283,289	347,469	373,141
Nutley.........	....	....	....	....	....	....	....	6,590
Orange.........	13,207	15,231	18,844	22,792	24,141	26,101	29,630	31,042
South Orange.........	....	....	....	....	....	....	....	6,447
West Orange.........	....	....	4,358	5,854	6,889	7,872	10,980	12,223
Gloucester County........	25,886	27,603	28,649	31,191	31,905	34,477	37,368	38,524
Hudson County...........	187,944	240,342	275,126	328,680	386,048	449,879	537,231	572,172
Bayonne.........	9,372	13,080	19,033	19,856	32,722	42,262	55,545	60,859
Guttenberg.........	....	....	....	....	....	....	....	6,081
Harrison.........	6,898	6,806	8,338	9,672	10,596	12,823	14,498	15,168
Hoboken.........	30,999	37,721	43,648	54,083	59,364	65,468	70,324	72,266
Jersey City.........	120,722	153,513	163,003	182,713	206,433	232,699	267,779	281,811
Kearny.........	....	....	....	10,487	10,896	13,601	18,659	20,682
Town of Union.......	5,849	8,398	10,613	13,336	15,187	17,005	21,023	22,630
West Hoboken.......	....	....	11,665	18,296	23,094	29,082	35,403	37,931
West New York.......	....	....	....	....	5,267	7,196	13,560	16,106
Hunterdon County........	38,570	37,420	35,355	35,334	34,507	33,258	33,569	33,693
Lambertville.........	....	....	....	....	....	5,016	4,657	4,513
Mercer County...........	58,061	66,785	79,978	85,538	95,365	110,516	125,657	131,713
Chambersburg.........	5,437	8,542	....	....	....	....	....	....
Princeton.........	....	....	....	....	....	6,029	5,136	4,779
Trenton.........	29,910	34,386	57,458	62,518	73,307	84,180	96,815	101,869
Middlesex County.........	52,286	56,180	61,754	70,058	79,762	97,036	114,426	121,382
New Brunswick.......	17,166	18,258	19,603	19,910	20,006	23,133	23,388	23,490
Perth Amboy.........	....	....	9,512	13,030	17,699	25,895	32,121	34,611
Roosevelt.........	....	....	....	....	....	....	....	5,786
South Amboy.........	....	....	4,330	5,571	6,349	6,258	7,007	7,307
Monmouth County........	55,538	62,324	69,128	75,543	82,057	87,919	94,734	97,460
Asbury Park.........	....	....	....	....	....	....	10,150	12,400
Long Branch.........	....	5,140	7,231	7,333	8,872	12,183	13,298	13,744
Red Bank.........	....	....	4,145	4,888	5,428	6,263	7,398	7,852
Morris County...........	50,861	50,675	54,101	59,536	65,156	67,934	74,704	77,412
Dover.........	....	....	....	....	5,938	6,353	7,468	7,914
Morristown.........	6,837	8,760	8,156	10,290	11,267	12,146	12,507	12,651
Ocean County...........	14,455	15,586	15,974	18,739	19,747	20,880	21,318	21,493
Passaic County...........	68,860	83,374	105,046	133,227	155,202	175,858	215,902	231,920
Passaic City.........	6,532	....	13,028	17,894	27,777	37,837	54,773	61,547
Paterson.........	51,031	....	78,347	97,344	105,171	111,529	125,600	131,228
Salem County...........	24,579	25,373	25,151	26,084	25,530	26,287	26,999	27,284
Salem City.........	5,056	5,316	5,516	6,337	5,811	6,443	6,614	6,682
Somerset County..........	27,162	27,425	28,311	30,447	32,948	36,270	38,820	39,840
North Plainfield.......	....	....	....	4,245	5,009	5,616	6,117	6,317
Somerville.........	....	....	....	....	....	....	....	5,171
Sussex County...........	23,539	22,401	22,259	22,586	24,134	23,325	26,781	28,163
Union County...........	55,571	61,839	72,467	85,404	99,353	117,211	140,197	149,391
Elizabeth.........	28,229	32,119	37,764	43,834	52,130	60,509	73,409	78,569
Plainfield.........	8,125	8,913	11,267	13,629	15,369	18,468	20,550	21,383
Rahway.........	6,455	6,861	7,105	7,945	7,935	8,649	9,337	9,612
Summit.........	....	....	....	4,450	5,302	6,845	7,500	7,762
Westfield.........	....	....	....	....	....	5,265	6,420	6,882
Warren County...........	36,589	37,737	36,553	37,283	37,781	40,403	43,187	44,301
Phillipsburg.........	7,181	8,058	8,644	9,081	10,052	13,352	13,903	14,123

COMPARATIVE DEATH RATE OF THE WHITE AND COLORED INHABITANTS IN NEW JERSEY.

The following table shows the estimated total population for the last 12 years in the State of New Jersey, together with the estimated colored population, the total death rate, the death rate among the white inhabitants, and the death rate among the colored inhabitants.

Comparing the figures of the last three years, there is a decided decrease in the death rate among the whites, while very little variation is shown in the death rate among the colored inhabitants.

TABLE 2.—SHOWING NUMBER OF WHITE AND COLORED INHABITANTS IN NEW JERSEY, WITH DEATH-RATES PER 1,000 POPULATION, FOR TWELVE YEARS, 1901-1912.

YEARS.	Estimated population (total).	Estimated population (colored).	Total death-rate.	Death-rate white.	Death-rate colored.
1901	1,883,669	72,011	16.48	16.65	21.79
1902	1,925,781	74,178	15.91	17.33	21.00
1903	2,016,797	76,345	15.87	15.44	24.32
1904	2,058,909	78,512	17.14	16.91	22.95
1905	2,144,143	79,485	15.79	15.57	21.59
1906	2,196,238	80,458	16.24	16.02	22.09
1907	2,248,331	81,431	16.63	16.42	22.47
1908	2,300,427	82,404	15.47	15.23	22.04
1909	2,352,522	83,377	15.46	15.29	20.09
1910	2,537,167	89,760	15.47	15.41	19.38
1911	2,615,772	91,815	14.76	14.56	20.29
1912	2,694,377	93,870	14.02	13.80	20.16

BIRTHS.

The following table shows the number of births, marriages and deaths in New Jersey, for the 34 years ending December 31st, 1912, and the figures for the present year show the highest birth rate of any year during the 34 years of which this department has record, with one exception.

This increase is probably due to the fact that local registrars throughout the state are more alert in requiring the births occurring in their districts to be properly reported, as required by law, and in addition to this there has been great demand for records of births at the State Bureau of Vital Statistics to be used for school purposes, as under a law recently enacted by the legislature, proof of the age of certain children entering school must be produced in the following form, "A duly attested transcript of the birth certificate filed according to law with the registrar of Vital Statistics, or other officer charged with the duty of recording births, which certificate shall be prima facie evidence of the age of such child."

In addition to the great number of calls for certificates of births to be used for school and pension purposes, there are also numerous requests for such papers to be used in applications for various positions in the Civil Service, for uses abroad, etc., all of which make a lively public demand that such records be made accurate and complete, and therefore the physicians and midwives throughout the state are realizing the fact that the reporting of these records is a matter of great importance to their clients, and it is hoped that this increased interest for the proper filing of such records, together with prompt application of the laws by local Boards of Health will be the means of greatly increasing the registration of births in New Jersey.

TABLE 3.—SHOWING POPULATION, NUMBER OF BIRTHS REPORTED, NUMBER OF MARRIAGES AND NUMBER OF DEATHS IN NEW JERSEY, WITH BIRTH-RATES, MARRIAGE RATES, AND DEATH-RATES FOR THE THIRTY-FOUR YEARS ENDING DECEMBER 31, 1912.

YEAR.	Population.*	BIRTHS.		MARRIAGES.		DEATHS.	
		Number of births reported	Birth-rate per 1,000 population.	Number of marriages.	Persons married per 1,000 population.	Number of deaths.	Death-rate per 1,000 population.
1879	1,020,584	23,116	22.65	7,096	13.91	20,440	20.03
1880	1,130,892	23,680	20.94	7,963	14.08	18,967	16.77
1881	1,160,275	23,484	20.24	8,109	13.98	20,812	17.94
1882	1,189,658	23,108	19.42	8,837	14.86	25,959	21.82
1883	1,209,048	24,430	20.21	9,166	15.16	23,310	19.28
1884	1,248,224	25,263	20.20	8,968	14.37	21,716	17.40
1885	1,278,033	24,077	18.84	8,989	14.07	23,807	18.63
1886	1,310,431	25,497	19.46	12,351	18.85	22,734	17.35
1887	1,342,829	27,340	20.36	15,416	22.96	24,331	18.12
1888	1,375,227	28,074	20.41	16,025	23.31	27,173	19.76
1889	1,407,625	29,099	20.67	15,726	22.34	26,543	18.86
1890	1,441,017	30,103	20.89	15,564	21.60	28,530	19.80
1891	1,478,784	28,882	19.53	15,305	20.70	28,840	19.50
1892	1,511,653	30,627	20.26	16,082	21.28	32,685	21.62
1893	1,538,799	32,285	20.98	17,178	22.33	30,596	19.88
1894	1,578,373	33,662	21.33	16,245	20.58	30,004	19.09
1895	1,672,942	31,742	18.97	15,873	18.98	30,634	18.31
1896	1,718,543	31,207	18.16	18,370	21.38	30,767	17.90
1897	1,764,144	31,595	17.91	18,171	20.60	29,822	16.90
1898	1,810,008	32,515	17.96	13,213	14.59	27,337	15.11
1899	1,855,872	29,419	15.84	13,336	14.37	30,999	16.70
1900	1,883,669	32,270	17.13	14,611	15.51	31,474	16.62
1901	1,925,781	34,812	18.08	16,539	17.18	31,739	16.48
1902	1,967,893	35,116	17.84	18,150	18.45	31,319	15.91
1903	2,016,797	37,242	18.47	19,512	19.35	31,820	15.87
1904	2,058,909	38,751	18.82	18,919	18.38	35,298	17.14
1905	2,144,143	29,689	18.51	20,572	19.19	33,864	15.79
1906	2,196,238	42,677	19.43	21,580	19.65	35,670	16.24
1907	2,248,331	44,651	19.86	23,649	21.04	37,408	16.63
1908	2,300,427	47,405	20.61	26,155	22.74	35,597	15.47
1909	2,352,522	47,508	20.19	29,724	25.27	36,359	15.46
1910	2,537,167	53,942	21.26	27,912	22.00	39,494	15.57
1911	2,615,772	58,133	22.22	25,014	19.13	38,612	14.76
1912	2,694,377	60,073	22.30	26,821	19.91	37,772	14.02

*Estimated except for census years.

NOTE.—The reports of births are not as complete as are those for marriages and deaths, hence the above table does not represent with accuracy the relation between birth-rates and death-rates.

NOTE.—The large number of marriages reported during the years 1886-1897 was due to the unrestricted authority contained in the laws for the performance of the marriage ceremony in the case of non-residents, and the marked decrease in the number of marriages which occurred in 1898 was directly consequent upon the enactment of the law requiring a license in cases where both parties are non-residents of the State, and again in 1910, when the law became operative requiring that all persons marrying in New Jersey shall first secure a license

MARRIAGES.

The marriage license law seems to have answered the question of runaway marriages in New Jersey, and in most places throughout the state, appears to be a great success.

In some of the counties bordering the larger cities of other states, there is now and then an apparent violation of the law, however, no evidence has ever been obtained clearly showing a direct violation of the act.

The marriage rate per 1,000 population is slightly higher than the preceding year.

TABLE 4.—SHOWING NUMBER OF MARRIAGES RECORDED IN NEW JERSEY FOR THE THIRTY-FOUR YEARS ENDING DECEMBER 31, 1912.

	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Marriages in New Jersey	7,096	7,963	8,109	8,837	9,166	8,968	8,989	12,351	15,416	16,025	15,726
Persons married 1,000 population.........	13.91	14.08	13.98	14.86	15.16	15.37	14.07	18.85	22.96	23.31	22.34

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Marriages in New Jersey..........	15,564	15,305	16,082	17,178	16,245	15,873	18,370	18,171	13,213	13,336	14,611
Persons married 1,000 population......	21.60	20.70	21.28	22.33	20.59	18.98	21.38	20.60	14.50	15.40	15.61

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Marriages in New Jersey....	16,539	18,150	19,512	18,919	20,572	21,580	23,649	26,155	29,724	27,912	25,014	26,821
Persons married 1,000 pop.....	17.23	18.45	19.35	18.38	19.19	19.65	21.04	22.74	25.27	22.00	19.13	19.91

DEATHS.

Comparing the death rate in New Jersey for last year, and that of 34 years ago, it is interesting to know that the total death rate has decreased nearly 33 1-3%, or from 20, per 1,000 inhabitants in 1870, to 14, in 1912.

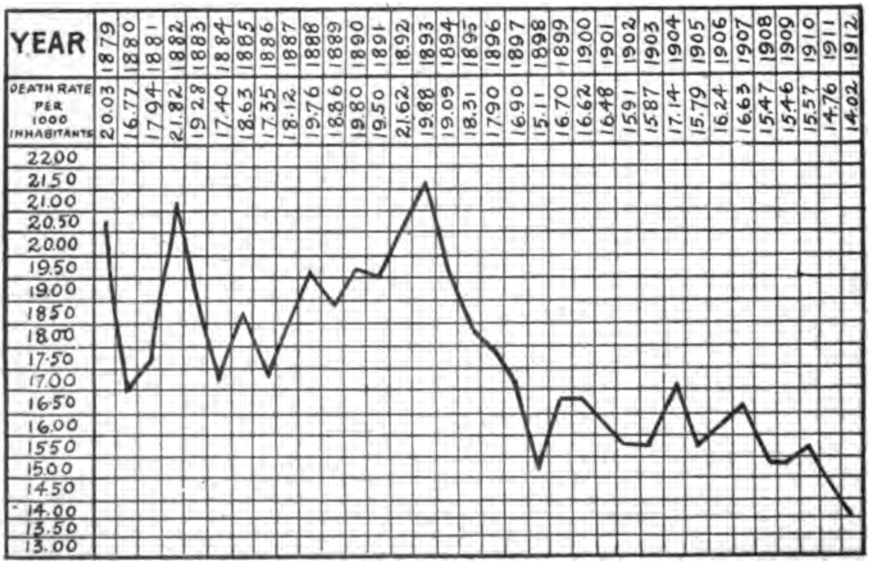
This gratifying decrease is mainly due to the efforts of those interested in health work. The State Board of Health has for the past ten years been regularly conducting examinations, and helping instruct men for the important duty of local health officers, sanitary inspectors, etc.

Trained men in charge of the health affairs of the various municipalities of the state are arresting and preventing epidemics of dangerous diseases, and abating nuisances which are detrimental to health.

The direct supervision of the State Board of Health over outbreaks of disease in state institutions, together with laboratory work in this behalf, is reducing serious epidemics along this line to a minimum.

The death rate of New Jersey for the present year is the lowest in the history of this department.

CHART SHOWING DEATH-RATE IN NEW JERSEY, PER 1,000 INHABITANTS FOR THIRTY-FOUR YEARS, 1879-1912.



YEAR	DEATH RATE PER 1000 INHABITANTS
1879	20.03
1880	16.77
1881	17.94
1882	21.82
1883	19.28
1884	17.40
1885	18.63
1886	17.35
1887	18.12
1888	19.76
1889	18.86
1890	19.80
1891	19.50
1892	21.62
1893	19.88
1894	19.09
1895	18.31
1896	17.90
1897	16.90
1898	15.11
1899	16.70
1900	16.62
1901	16.48
1902	15.91
1903	15.87
1904	17.14
1905	15.79
1906	16.24
1907	16.63
1908	15.47
1909	15.46
1910	15.57
1911	14.76
1912	14.02

TABLE 5.—DEATHS IN NEW JERSEY BY AGE PERIODS, FOR THE YEAR ENDING DECEMBER 31, 1912.

AGE PERIODS.																			
Under 1 mo.	Under 1 year.	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 70	70 to 80	80 to 90	Over 90.	Not stated.	Total number of deaths.
2,836	4,621	2,852	799	470	818	1,169	1,349	1,539	1,800	1,872	1,858	2,112	2,122	4,794	4,324	2,108	327	2	37,772

TABLE 6.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM CERTAIN CLASSIFIED DISEASES FOR THIRTY-FOUR YEARS, 1879-1912.

DISEASES.	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Acute lung diseases	2,160	1,988	2,208	2.752	2,756	2,174	2,566	2,300	2,557	2,922	2,862
Consumption, M.	2,788	2,714	2,989	1,696	1,527	1,557	1,673	1,651	1,910	1,723	1,772
Consumption, F.	......	......	......	1,779	1,594	1,658	1,647	1,554	1,743	1,635	1,677
Diarrhoeal diseases of children	1,849	2,166	2,305	2,792	2,656	2,462	2,845	2,664	2,694	3,508	3,377
Adult brain and spinal diseases	1,314	1,347	1,502	1,521	1,562	1,664	1,895	1,932	1,966	2,095	1,991
Brain and nervous diseases of children	1,647	1,638	1,642	1,999	1,683	1,598	1,791	1,774	1,886	1,971	1,923
Diseases of the heart and circulation	972	982	1,213	1,181	1,235	1,324	1,503	1,506	1,530	1,691	1,786
Diphtheria and croup	1,100	873	1,128	1,472	1,146	1,027	1,496	1,303	1,527	2,036	1,574
Digestive and intestinal diseases	1,041	1,005	1,080	740	923	1,075	1,140	1,213	1,242	1,476	1,450
Renal and cystic diseases	558	516	608	765	759	892	939	926	873	1,020	1,056
Violent deaths	......	......	......	793	907	......	857	997	1,051	1,320	1,077
Cancer	378	425	451	402	461	484	498	546	574	612	579
Typhoid fever	324	373	574	884	564	640	642	545	522	620	724
Scarlet fever	627	573	499	1,306	853	547	646	222	255	574	533
Puerperal	194	244	303	244	198	211	268	257	263	271	254
Whooping cough	277	130	110	253	189	116	181	274	181	161	278
Malarial fever	268	293	431	379	290	230	209	243	217	264	203
Measles	77	87	70	206	131	189	135	88	296	74	118
Erysipelas	137	109	124	94	90	80	74	79	96	128	114
Acute rheumatism	76	64	89	52	33	62	36	68	132	142	117
Small-pox	......	15	254	367	54	7	2	4	5	5	3
Total deaths per year	15,797	15,542	17,539	25,910	23,310	21,716	23,807	22,734	24,331	27,173	26,543

DISEASES	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Acute lung diseases	3,804	4,101	3,187	3,974	4,183	4,597	4,146	4,039	3,414	4,322	4,795
Consumption, M.	1,903	1,849	1,851	1,790	1.831	1,860	1,786	1,765	1,772	1,956	1,787
Consumption, F.	1,767	1,607	1,724	1,637	1,602	1,682	1,572	1,472	1,453	1,628	1,727
Diarrhoeal diseases of children	3.527	3,191	4,043	3,981	3,893	3,746	3,807	3,450	2,958	3,568	3,010
Adult brain and spinal diseases	2,308	2,333	2,457	2,611	2,413	2,626	2,610	2,582	2,700	2,842	2,946
Brain and nervous diseases of children	2,032	2,029	2,242	2,072	2,083	1,925	2,018	1,809	1,642	1,950	1,767
Diseases of the heart and circulation	1,945	1,960	2,183	2,179	2,112	2,268	2,412	2,475	2,276	2,731	2,852
Diphtheria and croup	1,575	1,737	1,776	1,677	1,294	1,464	1,587	1,382	950	777	927
Digestive and intestinal diseases	1,521	1,573	1,625	1,753	1,565	1,589	1,622	1,572	1,484	1,566	1,700
Renal and cystic diseases	1,149	1,200	1,444	1,441	1,447	1,523	1,584	1,752	1,694	1,925	2,072
Violent deaths	1,235	1,365	1,427	1,538	1,500	1,469	1,426	1,685	1,451	1,724	1,724
Cancer	640	642	688	723	731	770	811	857	852	946	921
Typhoid fever	782	695	628	506	485	568	577	478	450	486	356
Scarlet fever	209	288	1,008	445	272	264	183	203	201	187	220
Puerperal	250	296	282	282	293	294	283	278	264	267	288
Whooping cough	371	299	163	237	328	272	275	321	155	282	306
Malarial fever	195	180	198	148	162	144	119	132	82	96	84
Measles	174	250	197	73	257	95	390	156	195	96	231
Erysipelas	81	85	94	74	97	74	69	68	58	88	111
Acute rheumatism	106	76	100	102	91	82	59	69	55	73	73
Small-pox	......	......	38	43	11	23	2	......	......	......	5
Total deaths per year	28,530	28,810	32,685	37,596	30,004	30,634	30,767	29,822	27,337	30,999	31,474

TABLE 6.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM CERTAIN CLASSIFIED DISEASES FOR THIRTY-FOUR YEARS, 1879-1912.—Continued.

DISEASES.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Acute lung diseases. . . .	4,188	4,236	4,265	5,309	4,445	5,230	5,515	4,787	5,363	5,330	5,035	4,784
Consumption, M.	3,257	3,015	3,380	3,670	3,587	3,654	3,749	3,616	3,608	3,877	3,907	3,622
Pneumonia.	2,539	2,421	2,628	3,486	2,764	3,117	3,307	2,773	3,094	3,156	3,024	2,859
Diarrhoeal diseases of children.	1,895	1,878	1,603	2,423	2,290	2,397	2,492	2,575	2,369	2,929	2,611	2,464
Adult brain and spinal diseases.	2,836	2,787	2,880	3,053	3,942	3,219	3,402	3,246	3,245	3,679	3,634	3,612
Brain and nervous diseases of children.	2,012	1,806	1,795	1,986	2,095	1,717	1,688	1,489	1,452	818	705	669
Diseases of the heart and circulation.	2,772	3,066	3,166	3,301	3,316	3,460	3,911	3,841	4,023	4,438	4,497	4,922
Diphtheria and croup. .	683	683	748	918	699	673	632	535	610	728	568	481
Digestive and intestinal diseases.	2,221	2,042	2,060	2,279	2,183	2,245	2,459	2,305	2,258	2,645	2,389	2,423
Renal and cystic diseases.	2,043	2,021	2,160	2,361	2,487	2,543	2,803	2,640	2,797	3,039	3,165	3,169
Violent deaths.	2.153	1,775	2,010	2,206	2,162	2,313	2,447	2,366	2,479	2,528	2,766	2,653
Cancer.	1,042	1,031	1,132	1,125	1,282	1,389	1,466	1,535	1,663	1,838	1,942	2,026
Typhoid fever.	352	428	388	384	360	408	464	367	301	392	337	328
Scarlet fever.	179	217	299	416	164	193	286	396	338	229	214	146
Puerperal.	207	225	279	221	238	322	289	329	311	377	427	415
Whooping cough.	157	281	245	124	186	388	245	237	284	389	364	211
Malarial fever.	50	36	40	47	21	36	29	30	25	25	25	29
Measles.	77	204	41	180	98	203	144	189	242	186	281	296
Erysipelas.	71	69	86	113	90	94	106	96	57	112	97	97
Acute rheumatism.	116	94	71	68	101	109	87	97	68	54	94	91
Small-pox.	142	432	16	24	1	1	1	0	2	0	1	2
Total deaths per year. .	31,739	31,319	31,820	35,298	33,864	35,670	37,408	35,597	36,359	39,494	38,612	37,772

TABLE 7.—DEATHS IN NEW JERSEY, PER 10,000 POPULATION, FROM CERTAIN CLASSIFIED CAUSES, FOR THIRTY-FOUR YEARS.

CAUSES OF DEATH.	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Acute lung diseases	21.16	17.57	17.30	23.13	22.79	17.41	20.07	17.55	19.04	21.74	20.83
Consumption.	27.31	23.99	25.76	29.21	25.81	25.75	25.97	24.25	27 20	24.41	24.50
Diarrhoeal diseases of children.	18.11	19.15	19.43	15.06	21.96	19.72	22.25	20.32	20.06	25.50	23.99
Adult brain and spinal diseases.	12.87	11.91	12.94	12.78	12.91	13.38	14.82	14.74	13.64	15.23	14.14
Brain and nervous diseases of children.	16.13	14.48	14.15	16.80	13.92	12.80	14.01	13.53	14.04	14.33	13.66
Diseases of heart and circulation.	9.52	8.68	10.45	9.92	10.21	10.60	11.75	11.49	11.39	12.29	12.68
Diphtheria and croup.	10.86	7.71	9.72	12.37	9.47	8.21	11.70	9.94	11.37	14.80	11.18
Digestive and intestinal diseases.	10.20	8.88	9.30	6.22	7.63	8.62	8.91	9.25	9.24	10.73	10.30
Renal and cystic diseases.	5.46	4.56	5.24	6.43	6.27	7.14	7.34	7.06	6.50	7.41	7.50
Violent deaths.	.....	.....	.....	6.60	7.50	.....	6.59	7.60	7.82	9.59	7.65
Cancer.	3.70	3.75	3.88	3.37	3.81	3.87	3.89	4.15	4.21	4.45	4.11
Typhoid fever.	3.17	3.29	4.94	7.43	4.66	5.12	5.02	4.15	3.83	4.50	5.14
Scarlet fever.	6.14	5.06	4.30	10.09	7.05	4.38	5.05	1.69	1.89	4.17	3.78
Puerperal.	1.90	2.15	2.61	2.05	1.63	1.77	2.09	1.96	1.95	1.97	1.80
Whooping cough.	2.71	1.14	1.02	2.12	1.56	.92	.41	2.09	1.34	1.17	1.97
Malarial fever.	2.62	2.59	3.74	3.10	2.39	1.84	1.62	1.85	1.61	1.91	1.44
Measles.	.75	.76	.60	.78	1.08	1.51	1.05	.67	2.20	.53	.83
Erysipelas.	1.34	.96	1.06	.79	.74	.64	.57	.60	.71	.93	.80
Acute rheumatism.	.74	.56	.76	.43	.27	.49	.28	.51	.98	.10	.83
Small-pox.	.....	.13	2.18	3.08	.44	.56	.01	.03	.03	.03	.02

TABLE 7.—DEATHS IN NEW JERSEY, PER 10,000 POPULATION, FROM CERTAIN CLASSIFIED CAUSES, FOR THIRTY-FOUR YEARS.—Continued.

CAUSES OF DEATH.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Acute lung diseases	26.39	27.73	34.31	25.82	26.50	27.49	24.12	22.89	18.86	23.29	25.21
Consumption	24.46	23.37	23.64	22.28	21.77	21.17	19.53	18.34	17.81	19.31	18.48
Diarrhoeal diseases of children	24.47	21.57	26.74	25.87	24.66	22.39	22.15	19.55	16.34	19.23	15.83
Adult brain and spinal diseases	16.01	15.77	16.25	16.96	15.28	15.69	15.18	14.63	14.91	15.31	15.49
Brain and nervous diseases of children	14.10	13.72	14.83	13.46	12.11	11.50	11.74	10.25	9.06	10.53	9.29
Diseases of heart and circulation	18.49	13.25	14.41	14.16	12.74	13.55	14.03	14.52	12.62	14.92	14.99
Diphtheria and croup	10.92	11.74	11.74	10.89	8.19	8.75	10.22	7.83	5.24	4.19	4.87
Digestive and intestinal diseases	10.55	10.63	10.74	11.39	9.92	9.49	9.43	8.91	8.19	8.38	9.47
Renal and cystic diseases	7.97	8.11	9.55	9.36	9.16	9.10	9.21	9.92	9.85	10.37	10.90
Violent deaths	8.57	9.23	9.48	9.99	9.50	8.78	8.29	9.55	8.01	9.29	9.00
Cancer	4.41	4.34	4.55	4.69	4.63	4.60	4.71	4.83	4.70	5.10	4.81
Typhoid fever	5.42	4.69	4.15	3.28	3.07	3.39	3.35	2.70	2.48	2.62	1.87
Scarlet fever	1.45	1.94	6.66	2.89	1.72	1.57	1.06	1.15	1.11	1.01	1.16
Puerperal	1.73	2.00	1.86	1.83	1.85	1.75	1.64	1.57	1.45	1.44	1.51
Whooping cough	2.57	2.07	1.07	1.54	2.07	1.62	1.60	1.81	.85	1.51	1.61
Malarial fever	1.35	1.21	1.30	.96	1.02	.85	1.69	1.74	.45	.52	.40
Measles	1.20	1.69	1.30	.47	1.62	.56	2.26	.88	1.47	.52	1.21
Erysipelas	.56	.57	.62	.48	.61	.41	.40	.38	.32	.47	.58
Acute rheumatism	.73	.51	.66	.66	.57	.49	.34	.39	.31	.39	.38
Small-pox	.....	.....	.25	.27	.06	.13	.01	.....	.....	.....	.....

CAUSES OF DEATH.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Acute lung diseases	23.27	23.18	22.73	27.78	20.75	23.81	24.50	21.81	22.80	21.07	19.25	17.76
Consumption	16.91	15.32	16.76	17.83	16.73	16.64	16.67	15.72	15.34	15.28	14.94	13.44
Diarrhoeal diseases of children	9.84	9.54	7.95	11.77	10.68	10.91	11.08	11.19	10.07	11.54	9.98	9.14
Adult brain and spinal diseases	16.20	16.40	16.60	16.51	13.72	14.62	15.13	14.11	13.79	14.50	13.89	13.41
Brain and nervous diseases of children	11.26	9.72	9.95	10.68	9.77	7.82	7.51	6.47	6.17	3.22	2.70	2.48
Diseases of heart and circulation	14.37	15.58	15.70	16.03	15.47	15.75	17.39	16.70	17.10	17.49	17.19	18.27
Diphtheria and croup	3.55	3.74	3.71	4.46	3.26	3.06	2.81	2.33	2.59	2.87	2.17	1.79
Pneumonia*	13.18	12.30	13.03	16.93	12.89	14.19	14.76	12.05	13.15	12.44	11.56	10.61
Digestive and intestinal diseases	11.42	10.38	10.21	11.03	10.18	10.22	10.94	10.02	9.60	10.43	9.13	8.99
Renal and cystic diseases	10.45	10.27	10.71	11.47	11.58	11.58	12.47	11.48	11.89	11.98	12.10	11.76
Violent deaths	11.20	9.02	9.97	11.56	10.08	10.53	10.88	10.29	10.54	9.96	10.57	9.85
Cancer	5.42	5.24	5.61	5.46	5.98	6.32	6.52	6.67	7.07	7.24	7.42	7.56
Typhoid fever	1.83	2.17	1.92	1.87	1.68	1.86	2.06	1.60	1.28	1.55	1.29	1.22
Scarlet fever	.93	1.10	1.48	2.02	.76	.88	1.27	1.72	1.44	.90	.82	.54
Puerperal	1.70	1.14	1.38	1.07	1.11	1.47	1.29	1.43	1.32	1.49	1.63	1.54
Whooping cough	.82	1.43	1.21	.60	1.33	1.77	1.09	1.03	1.21	1.53	1.39	.78
Malarial fever	.26	.18	.20	.23	.10	.16	.13	.13	.11	.10	.10	.11
Measles	.40	1.04	.20	.87	.46	.92	.64	.82	1.03	.73	1.07	1.10
Erysipelas	.37	.35	.43	.55	.42	.43	.47	.42	.24	.44	.37	.36
Acute rheumatism	.60	.43	.35	.33	.47	.50	.39	.42	.29	.21	.36	.34
Small-pox	.74	2.20	.07	.01	.....	.....	.....	.....	.01	.....	.....	.....

*Deaths under this classification were not separately recorded until 1901.

TABLE 8.—SHOWING DEATH-RATE, PER 1,000 POPULATION, IN THE CITIES OF NEW JERSEY HAVING OVER 5,000 POPULATION, FOR THIRTY-FOUR YEARS, 1879-1912.

	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888
Atlantic City*	.....	.....	24.46	31.76	26.29	32.50	23.54	21.03	27.20	29.34
Bordentown	16.82	16.89	16.31	16.88	16.87	19.68	15.88	15.88	13.32	16.56
Burlington	21.10	15.61	18.37	22.94	18.51	18.93	24.45	21.46	17.30	21.46
Camden	18.88	19.27	22.90	24.55	20.01	22.37	18.30	19.27	20.49	22.79
Gloucester	14.10	15.70	20.19	18.32	21.88	21.69	15.42	16.59	22.96	23.13
Bridgeton	16.72	17.75	19.72	23.85	15.48	18.69	17.78	11.92	16.19	17.69
Millville	20.22	22.71	22.71	17.75	18.27	18.54	16.89	15.75	16.55	21.65
Newark	25.26	18.71	21.12	28.66	25.49	24.70	24.28	23.94	24.40	27.02
Orange	19.88	16.35	18.02	25.44	21.81	22.03	19.70	19.95	21.14	24.49
Bayonne	26.73	15.04	16.43	26.89	20.91	22.19	18.58	23.78	23.16	26.38
Harrison	.....	23.41	20.00	24.61	22.18	32.08	28.96	26.01	26.74	28.50
Hoboken	27.01	28.71	25.82	31.42	25.90	22.19	22.35	24.52	24.28	28.13
Jersey City	28.04	20.98	23.61	30.12	25.74	25.15	22.42	22.02	24.01	25.93
Town of Union	.....	20.04	18.80	36.93	35.73	23.42	25.84	22.03	22.74	24.77
Trenton	26.08	20.68	18.89	20.53	20.79	21.13	17.48	15.12	17.80	19.51
New Brunswick	19.50	15.66	18.81	22.78	26.79	28.18	18.40	19.06	19.17	19.28
Perth Amboy	.....	.....	.....	.....	.....	.....	.....	19.17	23.77	27.41
Long Branch*	.....	.....	.....	.....	.....	.....	.....	12.84	14.00	20.04
Morristown	16.40	18.71	15.94	17.70	28.96	20.77	14.61	13.70	13.58	18.95
Passaic	.....	21.78	19.44	22.82	20.82	23.58	16.64	21.02	22.82	24.38
Paterson	25.61	23.07	22.75	29.61	27.72	28.33	20.29	17.38	22.83	24.38
Salem	.....	15.02	14.63	19.58	23.14	15.43	19.22	22.30	16.13	18.85
Elizabeth	18.20	15.58	19.97	21.68	24.30	20.93	21.70	18.90	22.32	23.28
Plainfield	18.01	12.06	16.00	18.58	19.81	16.25	15.82	17.17	17.17	22.31
Rahway	24.31	17.97	16.11	28.35	20.29	17.19	15.60	14.58	16.91	20.41
Phillipsburg	14.08	17.54	15.87	23.53	20.46	18.10	18.37	14.40	19.24	13.28

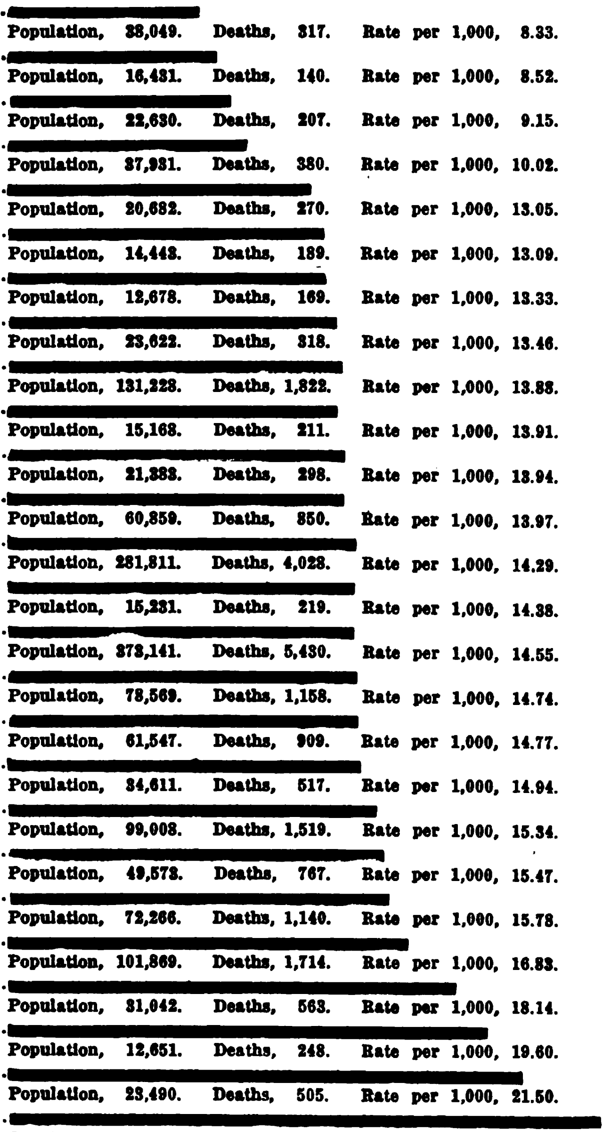
	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Atlantic City*	26.93	21.01	20.46	20.19	16.47	18.38	19.20	18.78	20.45	16.89
Hackensack	.....	.....	.....	.....	20.71	13.50	15.52	11.54	14.49	11.43
Bordentown	15.02	18.43	29.79	30.72	17.44	14.91	15.65	18.07	14.78	18.17
Burlington	20.13	18.30	20.44	24.24	18.82	25.47	18.87	19.28	18.20	14.28
Camden	18.73	23.15	23.68	25.37	22.06	23.35	22.07	19.97	20.71	17.82
Gloucester	21.82	18.89	21.85	23.38	24.77	20.73	23.78	28.13	25.61	18.31
Bridgeton	14.81	17.70	19.50	16.55	17.62	16.38	16.85	14.41	15.02	13.10
Millville	13.43	19.48	16.51	16.62	15.23	13.79	17.01	15.34	9.67	12.38
Montclair	.....	.....	.....	.....	.....	.....	.....	13.90	10.63	11.76
Newark	25.59	27.26	23.69	29.17	24.67	22.68	21.52	20.79	19.60	16.65
Orange	22.85	24.50	20.29	23.31	20.38	19.37	18.69	19.89	16.50	19.08
Bayonne	24.24	20.37	20.37	21.11	19.74	19.71	22.51	20.52	21.80	25.00
Harrison	26.65	27.67	31.70	28.27	26.50	22.17	25.12	25.45	18.61	23.77
Hoboken	25.57	25.62	25.41	26.97	23.97	24.63	22.98	22.59	21.94	18.06
Jersey City	22.66	25.96	26.60	27.78	26.67	25.32	24.61	23.61	19.60	19.16
Town of Union	19.74	22.42	26.05	20.80	20.31	18.97	17.62	15.86	14.70	13.58
Trenton	14.94	17.35	15.51	19.75	16.16	14.14	18.01	18.60	16.44	15.45
New Brunswick	20.18	17.71	17.51	24.60	16.31	17.96	17.38	20.03	19.33	14.73
Perth Amboy	24.76	17.41	23.05	22.61	19.71	18.47	18.96	17.84	17.11	14.93
South Amboy	.....	.....	.....	.....	.....	.....	.....	.....	17.31	13.14
Long Branch*	12.41	14.66	12.16	12.40	10.85	9.88	14.18	12.51	14.11	18.13
Dover	.....	.....	.....	.....	.....	.....	.....	.....	19.12	15.73
Morristown	24.32	19.91	16.55	20.80	18.55	19.04	18.56	18.85	16.16	17.38
Passaic	24.86	16.81	23.77	22.27	21.64	20.07	21.57	22.26	24.29	19.84
Paterson	23.02	21.87	22.95	22.61	21.00	20.31	18.25	19.22	18.71	15.89
Salem	18.18	17.60	16.86	19.58	17.42	20.49	16.69	16.77	16.65	18.30
Elizabeth	20.18	19.30	19.41	21.19	20.22	18.95	18.23	18.05	17.16	15.50
Plainfield	16.97	16.89	16.87	17.04	19.21	17.33	17.39	18.37	15.91	14.16
Rahway	19.20	19.32	17.61	23.05	23.87	18.76	18.12	17.13	16.06	14.30
Phillipsburg	15.98	14.96	15.75	14.77	14.29	13.50	20.71	14.70	16.75	18.40

TABLE 8.—SHOWING DEATH-RATE, PER 1,000 POPULATION, IN THE CITIES OF NEW JERSEY HAVING OVER 5,000 POPULATION, FOR THIRTY-FOUR YEARS, 1879-1912—Continued.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Atlantic City*.......	19.03	17.85	10.85	16.28	15.33	14.92	16.79	17.95	16.85	15 10	14.96	17.33	16.63	15.47
Hammonton........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.98	10.39
Englewood..........	17.57	17.75	15.74	16.45	15.86	18.82	14.90	17.08	16.65	14.12	14.58	15.72	13.56	12.49
Garfield..........	.....	.....	.....	.....	.....	.....	.....	.....	15.89	19.52	22.01	12.73	12.10	11.26
Hackensack.........	14.94	13.66	17.52	18.34	16.39	13.78	17.48	16.89	18.54	14.06	15.38	16.23	14.89	14.38
Ridgewood..........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.27	12.69
Rutherford..........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.04	9.79	7.69	10.67
Bordentown.........	17.35	19.46	16.55	17.27	18.73	19.71	13.26	17.19	15.52	17.53	13.60	18.82	18.90	16.89
Burlington..........	16.87	24.76	19.75	21.28	22.46	22.32	16.67	17.87	18.68	18.63	15.66	18.00	14.53	17.74
Camden............	19.35	14.11	17.56	16.90	16.05	18.01	16.17	18.44	17.44	16.75	16.57	17.21	16.80	15.34
Gloucester..........	19.50	19.88	11.27	21.03	17.89	17.32	18.37	18.44	19.55	19.58	17.95	15.54	13.45	12.47
Bridgeton..........	13.74	14.38	13.32	13.89	13.78	16.66	14.09	14.31	17.69	13.38	15.68	15.20	17.24	13.09
Millville............	13.38	15.78	14.61	16.27	14.13	16.67	13.72	13.67	14.00	14.77	11.68	11.97	11.50	13.33
Vineland..........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.56	17.45
Bloomfield..........	.....	.....	14.55	13.50	11.21	14.64	11.40	14.09	11.63	12.28	11.46	11.15	9.27	8.52
East Orange.........	.....	10.97	9.71	10.94	9.72	12.11	10.72	10.38	11.15	10.15	11.45	10.77	9.25	8.33
Irvington...........	.....	.....	9.24	14.66	12.86	10.67	12.53	13.35	14.34	11.88	14.56	11.96	12.48	10.98
Montclair...........	13.00	15.11	16.87	14.48	17.42	20.28	18.02	15.49	16.79	13.19	15.14	15.03	13.86	13.46
Newark............	19.40	19.60	19.14	18.71	18.47	19.61	17.45	19.08	19.11	17.01	17.62	16.65	15.13	14.55
Nutley............	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.63	10.32
Orange.............	18.19	20.63	17.45	20.26	20.40	21.85	20.46	20.34	19.08	19.25	16.16	17.72	17.80	18.14
South Orange.......	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.43	9.77
West Orange.......	.....	.....	13.25	10.27	10.52	11.02	13.59	10.66	11.49	12.53	13.40	8.65	9.14	9.16
Bayonne...........	25.59	17.39	16.38	15.32	18.44	16.60	15.76	17.18	16.56	15.05	13.32	16.35	13.08	13.97
Guttenberg.........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13.13	12.00
Harrison...........	19.18	22.37	21.24	19.33	18.63	16.69	18.87	17.56	19.25	15.75	12.32	16.35	13.08	13.91
Hoboken...........	19.91	23.01	18.67	18.80	17.70	22.33	21.11	21.46	22.91	18.31	17.64	18.90	17.76	15.78
Jersey City.........	19.78	20.34	19.12	18.65	18.82	20.85	18.88	19.36	19.42	17.82	17.36	16.46	15.95	14.29
Kearny............	.....	.....	.....	17.45	17.68	23.70	17.20	17.54	14.50	15.57	13.13	14.79	13.57	13.05
Town of Union......	11.63	14.16	11.25	16.39	16.07	17.76	12.94	16.52	16.41	16.25	15.01	11.99	10.67	9.15
West Hoboken......	.....	.....	.....	12.95	11.76	14.48	14.37	12.71	11.79	12.27	12.40	10.90	11.02	10.02
West New York.....	.....	.....	.....	14.85	11.98	16.14	15.42	13.72	17.07	16.88	17.39	12.46	11.86	11.92
Lambertville........	.....	.....	.....	.....	.....	.....	.....	.....	14.71	9.73	13.54	12.24	11.56	15.51
Princeton..........	.....	.....	.....	.....	.....	.....	.....	.....	9.16	14.23	7.89	15.19	14.73	13.60
Trenton...........	17.71	16.42	16.35	17.19	18.30	18.09	17.63	17.28	18.06	17.92	17.88	20.34	18.54	16.83
New Brunswick.....	16.04	21.29	18.18	20.00	19.43	22.16	19.66	17.76	19.19	18.15	19.00	21.21	20.22	21.50
Perth Amboy.......	16.16	14.46	16.53	14.82	12.70	14.39	12.20	12.89	13.68	12.82	13.31	15.78	14.03	14.94
Roosevelt..........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.04	15.90
South Amboy.......	12.65	13.86	16.14	19.52	15.68	16.06	19.97	21.89	16.86	14.51	15.20	15.41	13.83	13.69
Asbury Park*.......	.....	.....	.....	.....	.....	.....	.....	.....	14.58	16.35	17.08	16.75	12.83	12.90
Long Branch*......	17.51	18.15	24.07	21.50	20.21	22.37	21.51	18.15	18.59	16.02	17.66	21.96	21.00	24.37
Red Bank.	.....	.....	16.44	12.58	12.52	15.87	15.97	14.31	13.79	12.57	14.72	15.27	15.08	15.41
Dover.............	14.34	12.46	16.01	15.39	13.87	14.09	15.58	11.19	15.95	13.33	16.60	13.39	12.74	11.37
Morristown........	19.18	16.38	18.56	16.64	17.95	18.84	20.42	21.10	22.49	21.07	19.77	23.67	23.29	19.60
Passaic.	23.64	20.99	18.22	17.74	20.03	18.52	18.29	16.39	19.30	17.37	17.06	14.95	14.27	14.77
Paterson...........	19.65	18.70	17.53	16.87	15.28	17.84	16.51	17.66	16.12	16.19	16.19	14.73	14.73	13.88
Salem.............	18.30	20.13	14.11	16.00	17.21	20.31	16.92	16.90	16.28	17.30	13.10	14.21	15.64	17.51
North Plainfield.....	.....	.....	12.40	12.44	13.17	11.57	17.27	9.59	14.85	9.03	10.65	12.75	13.35	13.77
Somerville.........	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.16	18.57
Elizabeth..........	17.25	17.69	17.17	15.30	16.55	18.72	15.63	17.64	18.70	16.54	16.98	15.31	15.82	14.74
Plainfield...........	15.72	16.01	16.36	15.94	15.84	16.89	15.70	15.93	18.01	16.43	14.08	15.77	14.07	13.94
Rahway............	16.67	15.50	14.87	17.52	15.50	13.99	13.64	12.51	13.99	14.65	13.12	10.60	11.19	13.94
Summit............	.....	.....	11.62	11.81	14.28	13.03	12.27	14.12	10.99	13.64	12.01	18.40	11.40	17.91
Westfield..........	.....	.....	.....	.....	.....	.....	.....	.....	12.59	13.56	11.47	12.15	10.52	10.61
Phillipsburg........	13.68	12.13	14.34	15.04	13.44	15.51	10.03	11.49	14.99	9.85	9.88	15.32	13.06	13.38

*The death rate in summer resorts is calculated on the basis of the resident population, whereas the actual population is often several times larger, and on account of this floating population and the large number of invalids included in it, the death-rate is not a criterion of health conditions.

CHART SHOWING RELATIVE MORTALITY IN CERTAIN CITIES OF NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912.



East Orange	Population, 38,049.	Deaths, 317.	Rate per 1,000, 8.33.
Bloomfield	Population, 16,431.	Deaths, 140.	Rate per 1,000, 8.52.
Town of Union	Population, 22,630.	Deaths, 207.	Rate per 1,000, 9.15.
West Hoboken	Population, 37,931.	Deaths, 380.	Rate per 1,000, 10.02.
Kearny	Population, 20,682.	Deaths, 270.	Rate per 1,000, 13.05.
Bridgeton	Population, 14,443.	Deaths, 189.	Rate per 1,000, 13.09.
Millville	Population, 12,678.	Deaths, 169.	Rate per 1,000, 13.33.
Montclair	Population, 23,622.	Deaths, 318.	Rate per 1,000, 13.46.
Paterson	Population, 131,228.	Deaths, 1,822.	Rate per 1,000, 13.88.
Harrison	Population, 15,168.	Deaths, 211.	Rate per 1,000, 13.91.
Plainfield	Population, 21,383.	Deaths, 298.	Rate per 1,000, 13.94.
Bayonne	Population, 60,859.	Deaths, 850.	Rate per 1,000, 13.97.
Jersey City	Population, 281,811.	Deaths, 4,028.	Rate per 1,000, 14.29.
Hackensack	Population, 15,231.	Deaths, 219.	Rate per 1,000, 14.38.
Newark	Population, 373,141.	Deaths, 5,430.	Rate per 1,000, 14.55.
Elizabeth	Population, 78,569.	Deaths, 1,158.	Rate per 1,000, 14.74.
Passaic	Population, 61,547.	Deaths, 909.	Rate per 1,000, 14.77.
Perth Amboy	Population, 34,611.	Deaths, 517.	Rate per 1,000, 14.94.
Camden	Population, 99,008.	Deaths, 1,519.	Rate per 1,000, 15.34.
***Atlantic City**	Population, 49,573.	Deaths, 767.	Rate per 1,000, 15.47.
Hoboken	Population, 72,266.	Deaths, 1,140.	Rate per 1,000, 15.78.
Trenton	Population, 101,869.	Deaths, 1,714.	Rate per 1,000, 16.83.
Orange	Population, 31,042.	Deaths, 563.	Rate per 1,000, 18.14.
Morristown	Population, 12,651.	Deaths, 248.	Rate per 1,000, 19.60.
New Brunswick	Population, 23,490.	Deaths, 505.	Rate per 1,000, 21.50.
***Long Branch**	Population, 13,744.	Deaths, 335.	Rate per 1,000, 24.37.

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* The death-rate in summer resorts is calculated on the basis of the resident population, whereas the actual population is often several times larger, and on account of this floating population and the large number of invalids included in it, the death-rate is not a criterion of health conditions.

TABLE 9.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912, FROM TEN SELECTED PREVENTABLE DISEASES, WITH PERCENTAGE OF TOTAL MORTALITY.

NAMES OF DISEASES.	Deaths.	Percentage of total mortality.
Consumption	3,622	9.59
Pneumonia	2,859	7.57
Diarrhoeal diseases of children	2,464	6.52
Diphtheria	481	1.27
Typhoid fever	328	.87
Whooping cough	211	.56
Measles	296	.78
Scarlet fever	146	.39
Malarial fever	29	.08
Small-pox	2	....

TABLE 10.—SHOWING DEATHS FROM CERTAIN SELECTED CAUSES OF DEATH, PER 10,000 INHABITANTS, FOR THE YEARS ENDING DECEMBER 31, 1911, AND DECEMBER 31, 1912; ALSO SHOWING AVERAGE NUMBER OF DEATHS FROM SAID DISEASES DURING PAST THIRTY-FOUR YEARS.

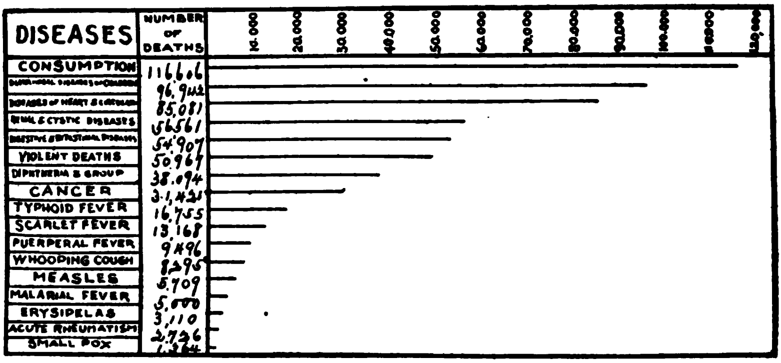
DISEASES.	Average number of deaths for thirty-four years.	Deaths per 10,000 inhabitants during year ending December 31st, 1911.	Deaths per 10,000 inhabitants during year ending December 31st, 1912.
Consumption	3,430	14.94	13.44
Diarrhoeal diseases of children	2,851	9.98	9.14
Pneumonia*	.....	11.56	10.61
Diseases of heart and circulation	2,502	17.19	18.27
Digestive and intestinal diseases	1,615	9.13	8.99
Diphtheria and croup	1,120	2.17	1.79
Renal and cystic diseases	1,664	12.10	11.76
Violent deaths	1,499	10.57	9.85
Cancer	924	7.42	7.52
Typhoid fever	493	1.29	1.22
Scarlet fever	387	.82	.54
Puerperal	279	1.63	1.54
Whooping cough	244	1.39	.78
Malarial fever	147	.10	.11
Measles	168	1.07	1.10
Erysipelas	91	.37	.36
Acute rheumatism	80	.36	.34
Small-pox	40	.....	.....

*Deaths from pneumonia were not separately recorded until the year 1901.

TABLE 11.—SHOWING MORTALITY IN NEW JERSEY, FROM CERTAIN SELECTED CAUSES OF DEATH, FOR THE YEAR ENDING DECEMBER 31, 1912, COMPARED WITH DEATHS FOR THE PREVIOUS YEAR.

SELECTED DISEASES.	Deaths for year ending December 31st, 1911.	Deaths for year ending December 31st, 1912.	Comparative mortality.
Consumption	3,907	3,622	− 285
Diseases of heart and circulation	4,497	4,922	+ 425
Renal and cystic diseases	3,165	3,169	+ 4
Digestive and intestinal diseases	2,389	2,423	+ 34
Diarrhoeal diseases of children	2,611	2,464	− 147
Cancer	1,942	2,026	+ 84
Diphtheria	568	481	− 87
Typhoid fever	337	328	− 9
Scarlet fever	214	146	− 68
Puerperal	427	415	− 12
Whooping cough	364	211	− 153
Erysipelas	97	97	......
Acute rheumatism	94	91	− 3
Measles	281	296	+ 15
Malarial fever	25	29	+ 4
Smal'-pox	1	2	+ 1

CHART SHOWING DEATHS IN NEW JERSEY, FROM CERTAIN SPECIFIED DISEASES, FOR THE PAST THIRTY-FOUR YEARS, ARRANGED IN ORDER OF GREATEST FREQUENCY.



CONSUMPTION.

The mortality from consumption during the past 34 years has been cut exactly in half. This result is largely due to the determined efforts which have been made by different organizations to combat the disease.

Various societies have been doing fine work in instructing by exhibits and lectures for the unfortunates who have contracted the disease.

The State Board of Health at the present time is conducting an instructive exhibit, consisting of motion pictures and charts, which are accompanied by a specialist on tuberculosis who lectures on the care and prevention of this disease. The exhibit is furnished free to any municipality in the state, which applies for it, and in the summer months considerable time is spent displaying motion pictures concerning the disease in the public parks of the state.

TABLE 12.—DEATHS FROM CONSUMPTION IN NEW JERSEY, BY AGE PERIODS, FOR TWELVE YEARS.

YEARS.	AGE PERIODS.											Totals.
	Under 1 year.	1 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	Over 80	Not stated.	
1901.........	39	73	241	937	827	510	319	199	87	25	.....	3,257
1902.........	39	62	227	842	759	504	281	199	76	19	7	3,015
1903.........	49	81	285	941	877	534	310	191	95	16	1	3,380
1904.........	67	80	315	983	1,005	575	337	217	78	11	2	3,670
1905.........	40	89	309	972	915	606	335	197	100	23	1	3,587
1906.........	62	93	309	953	942	646	339	199	84	26	1	3,654
1907.........	56	61	256	978	967	682	407	229	90	25	.....	3,751
1908.........	36	74	272	983	1,013	602	344	197	80	15	.....	3,616
1909.........	53	68	258	917	976	657	349	220	86	24	.....	3,608
1910.........	46	74	271	987	1,047	723	407	216	81	25	.....	3,877
1911.........	43	76	294	1,012	1,077	661	423	211	98	11	1	3,907
1912.........	32	61	288	891	982	697	365	206	87	13	.....	3,622

TABLE 13.—SHOWING NUMBER OF DEATHS AND DEATHS PER 1,000 POPULATION FROM CONSUMPTION IN NEW JERSEY, AND THE PROPORTION OF DEATHS FROM CONSUMPTION TO TOTAL DEATHS DURING THIRTY-FOUR YEARS.

YEARS.	Population.*	Total deaths in New Jersey.	Deaths from consumption.	Proportion of deaths from consumption to total deaths.	Deaths from consumption per 10,000 population.
1879	1,020,584	20,444	2,788	13.64	27.32
1880	1,130,892	18,967	2,714	14.30	24.00
1881	1,160,275	20,810	2,989	14.36	25.76
1882	1,189,658	25,910	3,475	13.41	29.21
1883	1,209,048	23,310	3,121	13.39	25.81
1884	1,248,224	21,716	3,215	14.80	25.76
1885	1,278,033	23,087	3,320	13.94	25.19
1886	1,310,431	22,734	3,205	14.10	24.46
1887	1,342,829	24,331	3,653	15.01	27.20
1888	1,375,227	27,173	3,358	12.44	24.42
1889	1,407,625	26,543	3,449	12.99	24.50
1890	1,441,017	28,530	3,669	12.96	25.46
1891	1,478,784	28,840	3,456	11.98	23.37
1892	1,511,653	32,685	3,575	10.94	23.65
1893	1,538,799	30,596	3,429	11.21	22.28
1894	1,578,373	30,004	3,433	11.44	21.75
1895	1,672,942	30,634	3,542	11.56	21.17
1896	1,718,543	30,767	3,358	10.92	19.54
1897	1,764,144	29,822	3,237	10.85	18.35
1898	1,810,008	27,337	3,225	11.79	17.82
1899	1,855,872	30,999	3,584	11.56	19.31
1900	1,883,669	31,474	3,514	11.17	18.64
1901	1,925,781	31,739	3,257	10.26	16.91
1902	1,967,893	33,655	3,015	8.96	15.32
1903	2,016,797	31,820	3,380	10.62	16.76
1904	2,058,909	35,298	3,670	10.40	17.83
1905	2,144,143	33,864	3,587	10.59	16.73
1906	2,196,238	35,670	3,654	10.24	16.64
1907	2,248,331	37,408	3,749	10.02	16.67
1908	2,300,427	35,597	3,616	10.16	15.72
1909	2,352,522	36,359	3,608	9.92	15.34
1910	2,537,167	39,494	3,877	9.82	15.28
1911	2,615,772	38,612	3,907	10.12	14.94
1912	2,694,377	37,772	3,622	9.59	13.44

*Estimated except for census years.

TABLE 14.—SHOWING MORTALITY RATES FROM ALL CAUSES AND FROM CONSUMPTION ONLY, IN MUNICIPALITIES HAVING 5,000 INHABITANTS OR OVER, FOR THE YEAR ENDING DECEMBER 31, 1912, PER 10,000 POPULATION.

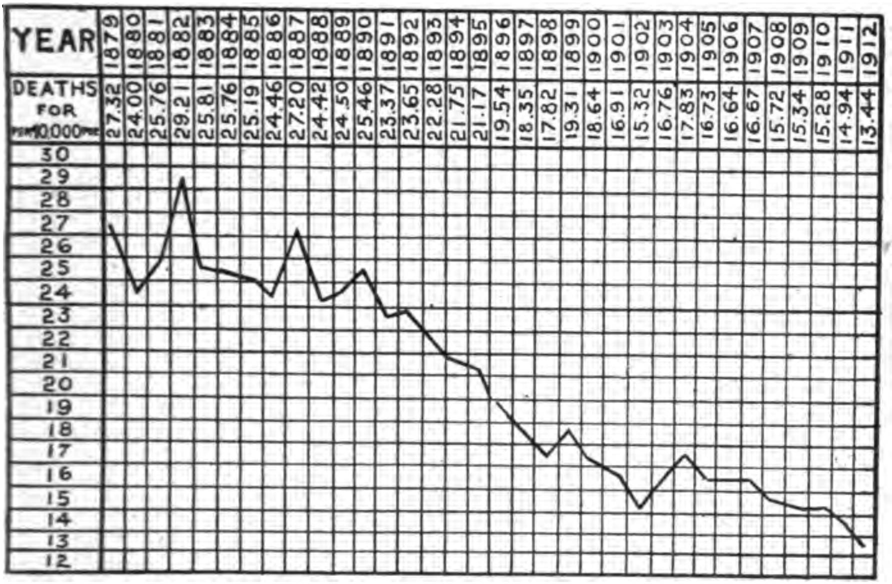
	Deaths from all causes per 10,000 population.	Deaths from consumption per 10,000 population.
Atlantic County	159.6	12.88
*Atlantic City	154.7	10.69
Hammonton	103.9	5.57
Bergen County	100.0	7.31
Englewood	124.9	3.73
Garfield	112.6	12.23
Hackensack	143.8	8.54
Ridgewood	126.9	5.01
Rutherford	106.7	3.86
Burlington County	145.3	9.71
Bordentown	168.9	32.40
Burlington	177.4	17.74
Camden County	145.0	14.33
Camden City	153.4	13.84
Gloucester City	124.7	7.98
Cape May County	108.8	3.88
Cumberland County	144.8	11.40
Bridgeton	130.9	7.62
Millville	133.3	14.99
Vineland	174.5	10.80
Essex County	151.4	16.17
Bloomfield	85.2	14.00
East Orange	83.3	7.36
Irvington	109.8	15.27
Montclair	134.6	11.01
Newark	145.5	17.12
Nutley	103.2	7.59
Orange	181.4	15.46
South Orange	97.7	6.20
West Orange	91.6	16.36
Gloucester County	125.4	3.34
Hudson County	170.8	16.56
Bayonne	139.7	12.16
Guttenberg	120.0	27.96
Harrison	139.1	15.82
Hoboken	157.8	23.66
Jersey City	142.9	17.39
Kearny	130.5	10.64
Town of Union	91.5	12.81
West Hoboken	100.2	11.34
West New York	119.2	12.42
Hunterdon County	144.3	7.88
Lambertville	155.1	11.08
Mercer County	121.7	17.55
Princeton	136.0	10.46
Trenton	168.3	18.26
Middlesex County	127.7	10.56
New Brunswick	215.0	19.58
Perth Amboy	149.4	10.69
Roosevelt	159.0	5.18
South Amboy	136.9	5.47
Monmouth County	148.1	9.93
*Asbury Park	129.0	9.68
*Long Branch	243.7	14.55
Red Bank	154.1	21.65
Morris County	145.3	11.61
Dover	113.7	5.05
Morristown	196.0	12.65
Ocean County	126.1	12.56
Passaic County	107.5	9.20
Passaic City	147.7	10.56
Paterson	138.8	11.51
Salem County	109.7	11.65
Salem City	175.1	17.96
Somerset County	127.7	8.11
North Plainfield	137.7	12.66
Somerville	185.7	13.54
Sussex County	119.0	6.04
Union County	117.9	11.12
Elizabeth	147.4	13.62
Plainfield	139.4	7.95
Rahway	139.4	14.57
Summit	179.1	27.01
Westfield	106.1	8.72
Warren County	135.2	7.29
Phillipsburg	133.8	15.58

*The death-rate in summer resorts is calculated on the basis of the resident population, whereas the actual population is often several times larger, and on account of this floating population and the large number of invalids included in it, the death-rate is not a criterion of health conditions.

TABLE 15.—SHOWING AVERAGE ANNUAL DEATH-RATES FROM ALL CAUSES AND AVERAGE ANNUAL DEATH-RATES FROM CONSUMPTION IN NEW JERSEY FOR THIRTY-FOUR YEARS, BY COUNTIES, COMPARED WITH DEATH-RATES FROM ALL CAUSES AND DEATH-RATES FROM CONSUMPTION, FOR THE YEAR ENDING DECEMBER 31, 1912, PER 10,000 POPULATION.

COUNTIES.	AVERAGES PER YEAR.			
	Average annual death-rate from all causes per 10,000 population for thirty-four years.	Average annual death-rate from consumption per 10,000 population for thirty-four years.	Death-rate per 10,000 population from all causes for year ending December 31, 1912.	Death-rate from consumption per 10,000 population for year ending Dec. 31, 1912.
Atlantic County	168.5	16.13	152.5	10.95
Bergen County	97.0	13.44	108.5	7.31
Burlington County	154.7	17.46	150.8	12.14
Camden County	183.7	21.36	149.2	13.58
Cape May County	137.0	13.33	108.8	3.87
Cumberland County	83.5	18.92	141.6	11.18
Essex County	185.8	24.62	138.2	15.65
Gloucester County	143.8	16.81	125.4	9.34
Hudson County	204.9	24.36	140.0	16.67
Hunterdon County	136.5	14.35	145.7	8.31
Mercer County	173.2	21.57	158.2	17.84
Middlesex County	159.8	16.30	152.8	11.78
Monmouth County	151.9	16.10	159.7	11.49
Morris County	110.0	19.04	150.4	11.11
Ocean County	142.6	18.86	126.1	12.56
Passaic County	178.3	20.27	135.9	10.87
Salem County	143.7	17.91	125.7	13.19
Somerset County	141.5	14.85	136.8	9.54
Sussex County	126.8	14.46	119.0	6.04
Union County	135.3	15.06	140.5	12.92
Warren County	146.0	14.29	134.8	9.93
The State	171.4	20.11	140.2	13.44

CHART SHOWING DEATHS FROM CONSUMPTION IN NEW JERSEY, PER 10,000 POPULATION, FOR THE THIRTY-FOUR YEARS, ENDING DECEMBER 31, 1912.



PNEUMONIA.

A gratifying decrease is shown in the death rate from pneumonia in New Jersey during the past year, and reference to table 18 shows that the death rate for the present year, 10.61, is lower than for any period during the past 12 years.

TABLE 16.—SHOWING DEATHS IN NEW JERSEY FROM PNEUMONIA, WITH AGE AT DEATH, FOR THE YEAR ENDING DECEMBER 31, 1912.

DEATHS FROM PNEUMONIA	AGE PERIODS.																		Total
	Under 1 mo.	Under 1 year.	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 70	70 to 80	80 to 90	Over 90.	Not stated.	
	98	474	401	50	21	38	65	83	105	129	121	144	141	148	344	326	145	26	—	2,859

TABLE 17.—SHOWING DEATHS FROM PNEUMONIA IN CITIES OF OVER 5,000 INHABITANTS, IN NEW JERSEY, BY MONTHS, FOR THE TEN YEARS ENDING DECEMBER 31, 1912, AND DEATH RATES PER 10,000 INHABITANTS, FOR EACH OF SAID YEARS.

YEARS.	Estimated population of cities of over 5,000 inhabitants.	MONTHS.												Totals	Death rate per 10,000 inhabitants.
		Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.		
1903....	1,363,464	271	288	261	128	155	67	98	58	75	91	202	278	1,972	14.46
1904....	1,370,719	401	350	394	315	241	134	42	51	72	108	187	289	2,584	18.85
1905....	1,429,100	309	271	251	190	178	96	75	73	69	121	199	209	2,041	14.28
1906....	1,505,142	340	286	341	175	189	86	80	69	89	127	178	285	2,245	14.92
1907....	1,546,574	361	290	333	235	214	144	100	64	93	142	162	364	2,502	16.18
1908....	1,584,217	329	279	252	178	174	80	66	73	89	154	149	269	2,092	13.21
1909....	1,623,851	301	254	314	299	208	104	67	52	95	142	203	286	2,325	14.32
1910....	1,742,534	357	224	297	273	191	123	69	76	84	103	185	332	2,314	13.28
1911....	1,844,646	371	280	333	274	141	78	60	90	70	120	181	210	2,208	11.97
1912....	1,902,461	340	265	257	223	162	124	71	79	65	130	145	243	2,104	11.06
Totals.	....	3,380	2,787	3,033	2,290	1,853	1,036	728	685	801	1,238	1,791	2,765	22,387	.....

TABLE 18.—SHOWING DEATHS AND DEATH-RATES FROM PNEUMONIA IN NEW JERSEY FOR TWELVE YEARS, 1901-1912.

YEARS.	Deaths from pneumonia.	Deaths from pneumonia per 10,000 inhabitants.
1901.	2,539	13.18
1902.	2,421	12.30
1903.	2,628	13.03
1904.	3,486	16.93
1905.	2,764	12.89
1906.	3,117	14.19
1907.	3,307	14.70
1908.	2,773	12.05
1909.	3,094	13.15
1910.	3,156	12.44
1911.	3,024	11.56
1912.	2,859	10.61

DEATHS AMONG CHILDREN.

The death rate among children under five years of age for the present year is lower than for any period during the past 12 years. This lowering of the death rate among infants is no doubt due to the increased knowledge of mothers of the proper care and feeding of infants, and the better quality of the milk supply of the state, which has been made possible by the inspection and scoring of dairies, together with the examination of samples of milk, which has been carried on by the state and local health departments.

TABLE 19.—SHOWING NUMBER OF DEATHS IN NEW JERSEY; DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE; DEATHS UNDER FIVE YEARS FROM DIARRHOEAL DISEASES, AND DEATHS UNDER FIVE YEARS PER 10,000 INHABITANTS, FOR THE TWELVE YEARS ENDING DECEMBER 31, 1912.

DEATHS.	NEW JERSEY.											
	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Total deaths	31,739	31,319	31,820	35,298	35,864	35,670	37,408	35,597	36,359	39,494	38,612	37,772
Deaths under five years	9,549	9,802	9,950	10,913	9,864	11,246	10,867	10,869	11,137	11,648	10,740	10,309
Deaths under five years from diarrhoea	1,787	1,857	1,603	2,354	2,290	2,365	2,453	2,561	2,350	2,929	2,611	2,464
Per cent. of Deaths under five years to total deaths	30.09	31 30	31.27	30.92	29.13	31.53	29.05	30.53	30.63	29.49	27.82	27.29
Deaths under five years per 10,000 population	49.59	49.81	44.34	53.00	46.00	51.21	48.33	47.25	47.34	45.91	41.06	38.26

TABLE 20.—SHOWING DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE IN NEW JERSEY PER 10,000 POPULATION FOR THIRTY-FOUR YEARS.

YEARS	Deaths under 1 year per 10,000 population.	Deaths from 1 to 5 years per 10,000 population.	YEARS.	Deaths under 1 year per 10,000 population.	Deaths from 1 to 5 years per 10,000 population.
1879	45.58	33.97	1896	43.99	24.43
1880	40.38	25.12	1897	40.16	20.00
1881	39.90	25.75	1898	35.91	15.83
1882	49.88	38.48	1899	38.22	17.04
1883	44.48	28.22	1900	37.05	18.44
1884	41.04	22.82	1901	36.11	13.48
1885	44.69	26.67	1902	36.18	13.63
1886	41.31	23.83	1903	37.08	15.38
1887	43.56	25.29	1904	36.18	16.82
1888	47.51	28.90	1905	32.42	13.59
1889	48.61	24.95	1906	35.39	15.81
1890	49.38	25.38	1907	34.39	13.94
1891	46.90	25.36	1908	34.01	13.24
1892	52.74	29.08	1909	32.55	14.79
1893	49.22	24.26	1910	32.92	12.99
1894	49.75	22.97	1911	29.22	11.84
1895	45.67	21.79	1912	27.68	10.59

TABLE 21.—SHOWING DEATHS IN NEW JERSEY FROM DIARRHOEAL DISEASES OF CHILDREN, WITH AGES AT DEATH, COMPARED WITH DEATHS FROM ALL CAUSES AMONG CHILDREN UNDER FIVE YEARS OF AGE, FOR YEAR ENDING DECEMBER 31, 1912.

AGE PERIODS.	Deaths from diarrhoeal diseases.	Deaths from all causes among children under five years of age.
Under one month	223	2,836
Over one month and under one year	1,765	4,621
One to five	476	2,852
Total	2,464	10,309

**TABLE 22.—SHOWING TOTAL DEATHS, DEATHS UNDER FIVE YEARS, PERCENTAGE
YEARS PER 10,000 INHABITANTS, FOR CERTAIN CITIES OF NEW JERSEY
31, 1912.**

NAME OF PLACE.	1908.				1909.			
	Total deaths.	Deaths under five years.	Percentage of deaths under five years to total deaths.	Deaths under five years per 10,000 population.	Total deaths.	Deaths under five years.	Percentage of deaths under five years to total deaths.	Deaths under five years per 10,000 population.
Atlantic City	656	149	22.71	34.30	679	161	23.71	35.46
Bayonne	722	335	46.40	69.81	678	300	44.25	60.13
Bloomfield	158	54	34.18	41.96	152	40	26.32	30.15
Bridgeton	180	43	23.89	31.97	210	49	23.33	36.59
Burlington	157	48	30.57	56.97	134	45	33.58	52.60
Camden	1,471	493	33.51	56.14	1,480	443	29.93	49.61
Dover	88	25	28.41	37.87	111	36	32.43	53.85
East Orange	278	64	23.02	23.38	322	57	17.70	20.28
Elizabeth	1,084	396	36.53	60.42	1,141	459	40.23	68.29
Englewood	126	33	26.19	36.98	135	50	37.04	54.02
Gloucester City	172	67	38.95	76.28	162	63	38.89	69.79
Hackensack	170	50	29.41	41.35	191	51	26.70	41.06
Harrison	223	94	42.15	66.39	180	70	38.89	47.93
Hoboken	1,266	405	31.99	58.59	1,241	400	32.23	56.86
Irvington	99	22	22.22	26.39	127	32	25.20	36.70
Jersey City	4,428	1,331	30.06	53.57	4,404	1,541	34.90	60.74
Kearny	237	64	27.00	42.04	207	37	17.87	23.47
Long Branch	227	51	22.47	35.99	262	52	19.85	35.06
Millville	187	55	29.41	43.44	151	46	30.46	35.59
Montclair	235	59	25.11	33.12	277	85	30.69	46.46
Morristown	267	83	31.09	65.49	254	72	28.35	56.04
Newark	5,198	1,640	31.55	53.66	5,516	1,742	31.58	55.64
New Brunswick	454	164	36.12	65.58	487	197	40.45	76.85
North Plainfield	54	11	20.37	18.39	65	12	18.46	19.67
Orange	525	166	31.62	60.86	447	137	30.65	49.51
Passaic City	762	385	50.52	87.75	783	435	55.56	94.80
Paterson	1,867	559	29.94	48.46	1,888	526	27.86	45.11
Perth Amboy	395	218	55.19	70.75	432	229	53.01	70.57
Phillipsburg	151	42	27.81	27.39	158	31	19.62	19.38
Plainfield	334	72	21.56	35.42	295	72	24.41	34.37
Rahway	133	17	12.78	18.73	121	28	23.14	30.37
Red Bank	85	14	16.47	20.70	102	32	31.37	46.17
Salem City	118	36	30.51	52.77	91	26	28.57	37.42
South Amboy	90	36	40.00	58.04	94	34	36.17	54.97
Summit	106	19	17.92	24.45	97	30	30.93	37.13
Town of Union	294	79	26.87	43.66	277	69	24.91	37.38
Trenton	1,625	523	32.18	57.66	1,661	500	30.10	53.83
West Hoboken	401	138	34.41	42.23	420	160	38.10	47.24
West New York	141	47	33.33	56.27	152	55	36.18	62.94
West Orange	106	36	33.96	42.54	116	31	26.72	35.81

OF DEATHS UNDER FIVE YEARS TO TOTAL DEATHS AND DEATHS UNDER FIVE HAVING OVER 5,000 POPULATION FOR THE FIVE YEARS ENDING DECEMBER

1910.				1911.				1912.			
Total deaths.	Deaths under five years.	Percentage of deaths under five years to total deaths.	Deaths under five years per 10,000 population.	Total deaths.	Deaths under five years.	Percentage of deaths under five years to total deaths.	Deaths under five years per 10,000 population.	Total deaths.	Deaths under five years.	Percentage of deaths under five years to total deaths.	Deaths under five years per 10,000 population.
800	213	26.63	46.15	796	159	19.97	33.22	767	145	18.90	29.25
827	355	42.93	63.91	815	369	45.28	63.40	850	357	42.00	58.66
168	45	26.79	29.86	146	38	26.03	24.13	140	46	32.86	28.00
216	40	18.52	28.15	247	44	17.81	30.71	189	40	21.16	27.70
150	51	34.00	61.18	122	25	20.49	29.78	150	49	32.67	57.95
1,627	538	33.07	55.85	1,626	502	30.87	51.87	1,519	447	29.43	45.14
100	34	34.00	45.53	98	22	22.45	28.60	90	28	31.11	35.36
370	65	17.57	18.91	335	58	17.31	16.02	317	51	16.09	13.40
1,124	388	34.52	52.85	1,202	407	33.86	53.56	1,158	398	34.37	50.66
156	32	20.51	32.25	140	19	13.57	18.40	134	39	29.10	36.36
147	58	39.46	61.30	131	37	28.24	37.97	125	33	26.40	32.92
228	72	31.58	51.25	218	60	27.52	40.98	219	69	31.51	45.30
237	103	43.46	71.04	194	78	40.21	52.59	211	86	40.76	56.70
1,329	360	27.09	51.19	1,266	385	30.41	54.00	1,140	257	22.54	35.56
142	32	22.54	26.94	160	30	18.75	23.41	151	36	23.84	26.17
4,407	1,333	30.25	49.78	4,384	1,318	30.06	47.96	4,028	1,128	28.00	40.03
276	56	20.29	30.01	267	63	23.60	32.03	270	54	20.00	26.11
292	56	19.18	42.11	284	51	17.96	37.72	335	50	14.93	36.38
149	41	27.25	32.93	166	36	21.69	28.65	169	55	32.54	43.38
324	119	36.73	55.22	313	81	25.87	35.86	318	93	29.25	39.37
296	74	25.00	59.17	293	74	25.26	58.83	248	79	31.85	62.45
5,784	1,775	30.69	51.08	5,451	1,572	28.84	43.63	5,430	1,554	28.62	41.65
496	169	34.07	72.26	474	168	35.44	71.68	505	159	31.49	67.69
78	17	21.79	27.79	83	21	25.30	33.78	87	18	20.69	28.49
525	153	29.14	51.64	540	161	29.81	53.07	563	160	28.42	51.54
819	412	50.31	75.22	830	436	52.53	74.97	909	451	49.61	73.28
1,850	519	28.05	41.32	1,891	431	22.79	33.56	1,822	474	26.02	36.12
507	256	50.49	79.70	468	240	51.28	71.93	517	264	51.06	76.28
213	72	33.80	51.79	183	55	30.05	39.25	189	55	29.10	38.94
324	76	23.46	36.98	295	58	19.66	27.66	298	83	27.85	38.82
99	21	21.21	22.49	106	23	21.70	24.27	134	25	18.66	26.01
113	29	25.66	39.20	115	36	31.30	47.21	121	31	25.62	39.48
94	22	23.40	33.26	104	24	23.08	36.10	117	24	20.51	35.92
108	31	28.70	44.24	99	33	33.33	46.11	100	30	30.00	41.06
138	27	19.56	36.00	87	18	20.69	23.59	139	21	15.11	27.01
252	96	38.10	45.66	233	70	30.04	32.07	207	46	22.22	20.33
1,969	655	33.27	67.65	1,842	587	31.87	59.09	1,714	460	26.84	45.16
386	106	27.46	29.94	404	134	33.17	36.55	380	106	27.89	27.95
169	70	41.42	51.62	176	60	34.09	40.45	192	66	34.38	40.98
95	32	33.68	29.14	106	32	30.19	27.58	112	22	19.64	18.00

TABLE 23.—SHOWING DEATHS IN CERTAIN CITIES OF NEW JERSEY, ALSO DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE; DEATHS UNDER FIVE YEARS FROM DIARRHOEA AND DEATHS UNDER FIVE YEARS PER 10,000 INHABITANTS.

DEATHS.	NEWARK.				
	1908	1909	1910	1911	1912
Total deaths	5,198	5,516	5,784	5,451	5,430
Deaths under five years	1,640	1,742	1,775	1,572	1,554
Deaths under five years from diarrhoea	344	340	361	414	373
Percentage of deaths under five years to total deaths	31.55	31.58	30.69	28.84	28.62
Deaths under five years per 10,000 population	53.66	55.64	51.08	43.63	41.65

DEATHS.	JERSEY CITY.				
	1908	1909	1910	1911	1912
Total deaths	4,428	4,404	4,407	4,384	4,028
Deaths under five years	1,331	1,541	1,338	1,318	1,128
Deaths under five years from diarrhoea	375	332	390	328	258
Percentage of deaths under five year to total deaths	30.06	34.99	30.25	30.06	28.00
Deaths under five years per 10,000 population	53.57	60.74	49.78	47.96	40.03

DEATHS.	PATERSON.				
	1908	1909	1910	1911	1912
Total deaths	1,867	1,888	1,850	1,891	1,822
Deaths under five years	559	526	519	431	474
Deaths under five years from diarrhoea	126	108	142	89	100
Percentage of deaths under five years to total deaths	29.94	27.86	28.05	22.79	26.02
Deaths under five years per 10,000 population	48.46	45.11	41.32	33.56	36.12

DEATHS.	CAMDEN.				
	1908	1909	1910	1911	1912
Total deaths	1,471	1,480	1,627	1,626	1,519
Deaths under five years	483	443	538	502	447
Deaths under five years from diarrhoea	57	88	102	103	91
Percentage of deaths under five years to total deaths	32.83	29.93	33.07	30.87	29.43
Deaths under five years per 10,000 population	55.00	49.61	55.95	51.87	45.14

DEATHS.	HOBOKEN.				
	1908	1909	1910	1911	1912
Total deaths	1,266	1,241	1,329	1,266	1,140
Deaths under five years	405	400	360	385	257
Deaths under five years from diarrhoea	105	87	85	61	51
Percentage of deaths under five years to total deaths	32.00	32.23	27.09	30.41	22.54
Deaths under five years per 10,000 population	58.59	56.86	51.19	54.00	35.56

DEATHS.	TRENTON.				
	1908	1909	1910	1911	1912
Total deaths	1,625	1,661	1,969	1,842	1,714
Deaths under five years	523	500	655	587	460
Deaths under five years from diarrhoea	95	108	183	128	115
Percentage of deaths under five years to total deaths	32.18	30.10	33.27	31.87	26.84
Deaths under five years per 10,000 population	57.66	53.83	67.65	59.09	45.16

TABLE 24.—SHOWING DEATHS IN NEW JERSEY UNDER FIVE YEARS OF AGE PER 10,000 POPULATION FOR THIRTY-FOUR YEARS, TOGETHER WITH AVERAGES FOR THE NINETEEN YEARS, 1879-1897, AND ALSO FOR THE FIFTEEN YEARS, 1898-1912.

YEARS.	Deaths under five years per 10,000 population.	YEARS.	Deaths under five years per 10,000 population.
1879	75.55	1898	51.74
1880	65.50	1899	55.26
1881	65.65	1900	55.49
1882	88.36	1901	49.59
1883	72.70	1902	49.81
1884	63.86	1903	52.46
1885	71.36	1904	53.00
1886	65.14	1905	46.01
1887	68.85	1906	51.21
1888	76.41	1907	48.33
1889	73.56	1908	47.25
1890	74.74	1909	47.34
1891	72.26	1910	45.91
1892	81.82	1911	41.06
1893	73.48	1912	38.26
1894	72.72		
1895	67.46		
1896	68.42		
1897	60.16		
Average death-rate for nineteen years ending 1897	71.69	Average death-rate for fifteen years ending 1912	48.85

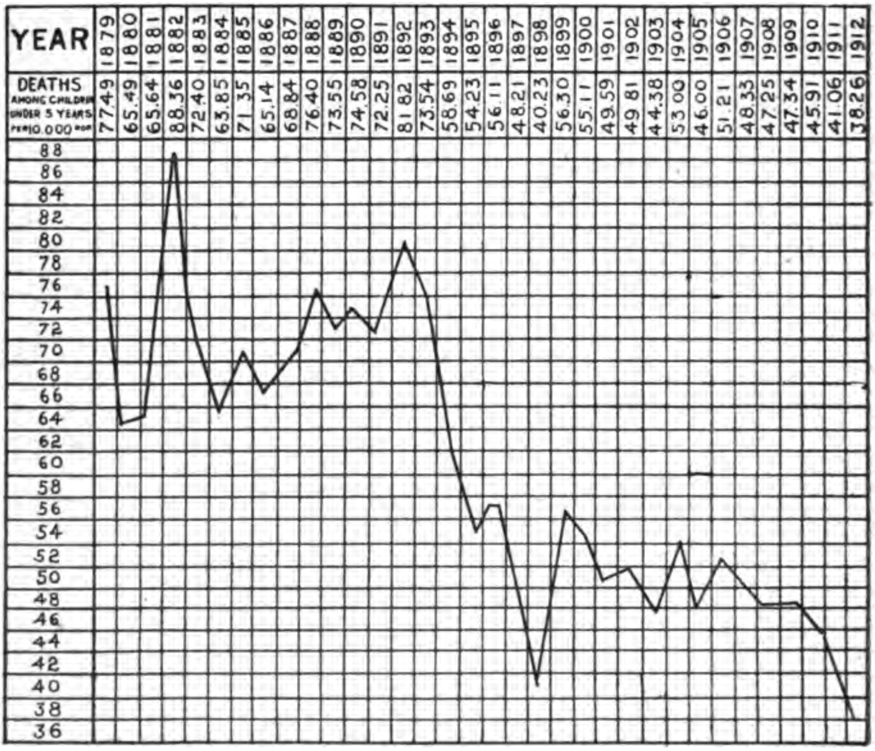
TABLE 25.—SHOWING PERCENTAGE OF DEATHS UNDER FIVE YEARS TO TOTAL DEATHS, AND DEATHS UNDER FIVE YEARS PER 10,000 INHABITANTS FOR CERTAIN CITIES OF NEW JERSEY HAVING OVER 5,000 POPULATION, FOR THE YEAR ENDING DECEMBER 31, 1912.

NAMES OF CITIES.	Percentage of deaths under five years to total deaths.	Deaths under five years per 10,000 inhabitants.
Atlantic City	18.90	29.25
Hammonton	26.78	27.83
Englewood	29.10	36.36
Garfield	56.52	63.62
Hackensack	31.51	45.30
Ridgewood	3.95	5.01
Rutherford	10.84	11.57
Bordentown	27.40	46.29
Burlington	32.67	57.95
Camden	29.43	45.14
Gloucester	26.40	32.92
Bridgeton	21.16	27.70
Millville	32.54	43.38
Vineland	20.62	35.98
Bloomfield	32.86	28.00
East Orange	16.09	13.40
Irvington	23.84	26.17
Montclair	29.25	39.37
Newark	28.62	41.65
Nutley	36.76	37.94
Orange	28.42	51.54
South Orange	23.81	23.27
West Orange	19.64	18.00
Bayonne	42.00	58.66
Guttenberg	30.14	36.18
Harrison	40.76	56.70
Hoboken	22.54	35.56
Jersey City	28.00	40.03
Kearny	20.00	26.11
Town of Union	22.22	20.33
West Hoboken	27.89	27.95
West New York	34.38	40.98
Lambertville	15.71	24.37
Princeton	20.00	27.20
Trenton	26.84	45.16
New Brunswick	31.49	67.69
Perth Amboy	51.06	76.28
Roosevelt	76.09	120.98
South Amboy	30.00	41.06
Asbury Park	22.50	29.03
Long Branch	14.93	36.38
Red Bank	25.62	39.48
Dover	31.11	35.36
Morristown	31.85	62.45
Passaic	49.61	73.28
Paterson	26.02	36.12
Salem	20.51	35.92
North Plainfield	20.69	28.49
Somerville	17.71	32.88
Elizabeth	34.37	50.66
Plainfield	27.85	38.82
Rahway	18.66	26.01
Summit	15.11	27.01
Westfield	23.29	24.70
Phillipsburg	29.10	38.94

TABLE 26.—SHOWING NUMBER OF DEATHS IN NEW JERSEY AMONG CHILDREN UNDER FIVE YEARS OF AGE IN MANUFACTURING DISTRICTS, AND ALSO IN COUNTIES OUTSIDE OF THE LARGER TOWNS, WITH COMPARATIVE MORTALITY.

NAMES OF MANUFACTURING TOWNS	Estimated population 1912.	Number of deaths occurring in children under five years of age.	Number of deaths of children under five years of age for each 1,000 of population.	Population of counties outside of larger cities.	Number of deaths occurring in children under five years of age in counties outside of larger cities.	Number of deaths of children under five years of age for each 1,000 of population in counties outside of larger cities.
Bayonne (Hud Co.)	60,859	357	5.87	38,638	112	2.90
Beverly (Bur. Co.)	2,093	12	5.73	55,598	179	3.22
Boonton (Morris Co.)	5,328	17	3.19	56,847	161	2.83
Bordentown (Bur. Co.)	4,321	20	4.63	55,598	179	3.22
Bound Brook (Som. Co.)	4,202	24	5.71	28,352	96	3.39
Bridgeton (Cumb. Co.)	14,443	40	2.77	23,691	52	2.19
Burlington (Bur. Co.)	8,455	49	5.80	55,598	179	3.22
Camden (Cam. Co.)	99.008	447	4.51	41,186	103	2.50
Carlstadt (Ber. Co.)	4,090	9	2.20	101,219	308	3.04
Elizabeth (U. Co.)	78,569	398	5.07	25,181	87	3.45
Garfield (Ber. Co.)	12,261	78	6.36	101,219	308	3.04
Gloucester City (Cam. Co.)	10,025	33	3.29	41,186	103	2.50
Hoboken (Hud. Co.)	72,266	257	3.56	38,638	112	2.90
Jersey City (Hud. Co.)	281,811	1,128	4.00	38,638	112	2.90
Lambertville (Hunt. Co.)	4,513	11	2.44	29,180	58	1.99
Lodi (Ber. Co.)	4,676	35	7.49	101,219	308	3.04
Millburn (Essex Co.)	3,935	10	2.54	32,768	75	2.29
Milltown (Mdx. Co.)	1,734	7	4.04	50,188	246	4.90
Millville (Cumb. Co.)	12,678	55	4.34	23,691	52	2.19
Newark (Essex Co.)	373,141	1,554	4.17	32,768	75	2.29
New Brunswick (Mdx. Co.)	23,490	159	6.77	50,188	246	4.90
Orange (Essex Co.)	31,042	160	5.15	32,768	75	2.29
Passaic City (Pas. Co.)	61,547	451	7.33	39,145	152	3.88
Paterson (Pas. Co.)	131,228	474	3.61	39,145	152	3.88
Perth Amboy (Mdx. Co.)	34,611	264	7.63	50,188	246	4.90
Phillipsburg (W. Co.)	14,123	55	3.89	30,181	97	3.21
Plainfield (U. Co.)	21,383	83	3.88	25,181	87	3.45
Rahway (U. Co.)	9,612	25	2.60	25,181	87	3.45
Raritan (Som. Co.)	3,559	21	5.90	28,352	96	3.39
Riverton Bor. (Bur. Co.)	1,880	4	2.13	55,598	179	3.22
Salem City (Salem Co.)	6,682	24	3.59	20,602	44	2.14
South River (Mdx. Co.)	5,247	60	11.43	50,188	246	4.90
Town of Union (Hud. Co.)	22,630	46	2.03	38,638	112	2.90
Trenton (Mer. Co.)	101,869	460	4.52	25,065	52	2.07
Vineland (Cumb. Co.)	5,558	20	3.60	23,691	52	2.19
Wharton (Mor. Co.)	3,262	9	2.76	56,847	161	2.83

CHART SHOWING DEATHS IN NEW JERSEY AMONG CHILDREN UNDER FIVE YEARS OF AGE, PER 10,000 POPULATION, FOR THIRTY-FOUR YEARS.



DIPHTHERIA.

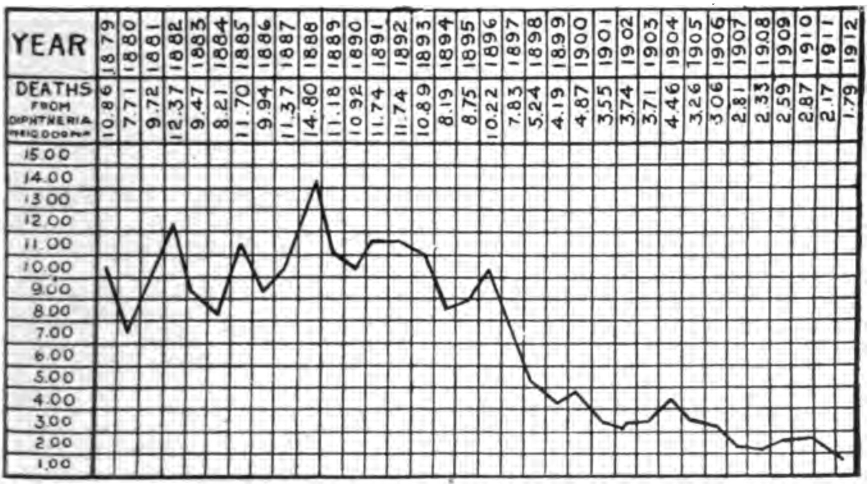
The death rate from diphtheria in New Jersey for the past year is also the lowest of which this department has record, and there is no doubt that the work of the State Laboratory of Hygiene in examining specimens from suspected cases of this disease, and the information supplied by the laboratory to the attending physician, is largely responsible for saving the lives of many infants.

In the case of diphtheria it is usually required that a laboratory examination show the patient entirely free from diphtheria bacilli before quarantine is released.

TABLE 27.—SHOWING DEATHS IN NEW JERSEY FROM DIPHTHERIA WITH AGES OF DECEDENTS, FOR YEAR ENDING DECEMBER 31, 1912.

AGE PERIODS.	Deaths from Diphtheria.	AGE PERIODS.	Deaths from Diphtheria.	AGE PERIODS.	Deaths from Diphtheria.
Under 1 month. . . .	. . . .	25 to 30.	. . . .	60 to 70.	3
Under 1 year.	44	30 to 35.	3	70 to 80.	. . . .
1 to 5.	274	35 to 40.	2	80 to 90.	. . . .
5 to 10.	123	40 to 45.	1	Over 90.	. . . .
10 to 15.	13	45 to 50.	2	Not stated.	. . . .
15 to 20.	7	50 to 55.	1	. . . .	. . .
20 to 25.	7	55 to 60.	1	Total.	481

CHART SHOWING DEATHS FROM DIPHTHERIA PER 10,000 POPULATION, IN NEW JERSEY, FOR THE THIRTY-FOUR YEARS ENDING DECEMBER 31, 1912.



TYPHOID FEVER.

The deaths in New Jersey from typhoid fever for the year 1912 show a noticeable decrease, and in this disease as well as many others, the lowest death rate is shown for any period during the past 34 years or of which this department has record.

Great efforts are being made by the State Board of Health to see that the potable waters of New Jersey are kept free from pollution, and there is no doubt that the results of these efforts are reflected in the decreased death rate from typhoid fever.

The campaigns carried on throughout the state for the extermination of flies are also commendable, and should be continued, as this source of contracting the disease is largely beyond the efforts of organized health boards, but rather a matter for the individuals themselves, and every person should see that their home is properly screened, and other efforts made for the extermination of flies.

TABLE 28.—SHOWING COMPARATIVE DEATH-RATES FROM TYPHOID FEVER, PER 10,000 INHABITANTS, IN THE REGISTRATION AREA OF THE UNITED STATES AND IN NEW JERSEY, FOR THE TWELVE YEARS ENDING DECEMBER 31, 1912.

	DEATHS FROM TYPHOID FEVER, PER 10,000 INHABITANTS.												
	Annual average 1901–1912.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Registration area of United States....	2.77	3.24	3.44	3.43	3.19	2.81	3.21	3.03	2.53	2.20	2.35	2.10	1.65
New Jersey........	1.69	1.83	2.17	1.92	1.87	1.68	1.86	2.06	1.60	1.28	1.55	1.29	1.22

TABLE 29.—SHOWING DEATHS PER 10,000 POPULATION FROM TYPHOID FEVER IN NEW JERSEY FOR THIRTY-FOUR YEARS.

YEAR.	Population.*	Number of deaths from typhoid fever.	Deaths from typhoid fever, per 10,000 inhabitants.	YEAR.	Populatoin.*	Number of deaths from typhoid fever.	Deaths from typhoid fever, per 10,000 inhabitants.
1879......	1,020,584	324	3.17	1896.....	1,718,543	577	3.25
1880......	1,130,892	373	3.29	1897.....	1,764,141	458	2.70
1881......	1,160,275	574	4.94	1898.....	1,810,008	450	2.48
1882......	1,189,658	884	7.43	1899.....	1,855,872	486	2.62
1883......	1,209,048	564	4.66	1900.....	1,883,669	356	1.87
1884......	1,248,224	640	5.12	1901.....	1,925,781	352	1.93
1885......	1,278,033	642	5.02	1902.....	1,967,893	428	2.17
1886......	1,310,431	545	4.15	1903.....	2,016,797	388	1.92
1887......	1,342,829	522	3.88	1904.....	2,058,909	384	1.87
1888......	1,375,227	620	4.50	1905.....	2,144,143	360	1.68
1889......	1,407,625	724	5.14	1906.....	2,196,238	408	1.86
1890......	1,441,017	782	5.42	1907.....	2,248,331	464	2.06
1891......	1,478,784	695	4.69	1908.....	2,300,427	367	1.60
1892......	1,511,653	628	3.15	1909.....	2,352,522	301	1.28
1893......	1,538,799	506	3.28	1910.....	2,537,167	392	1.55
1894......	1,578,373	485	3.07	1911.....	2,615,772	337	1.29
1895......	1,672,942	568	3.39	1912.....	2,694,377	328	1.22

*Population estimated except for census years.

TABLE 30.—SHOWING DEATHS FROM TYPHOID FEVER IN NEW JERSEY, PER 10,000 POPULATION, BY COUNTIES, FOR TWELVE YEARS ENDING DECEMBER 31, 1912, WITH AVERAGES FOR TWELVE YEARS.

COUNTIES.	YEARS.												
	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Average for twelve years.
Atlantic County	2.67	2.74	2.81	1.97	2.01	1.60	2.30	1.62	1.13	1.53	2.15	1.96	2.04
Bergen County	.99	1.08	1.16	1.24	1.10	1.15	1.29	.71	.85	1.16	.69	.72	1.01
Burlington County	2.58	2.23	3.61	2.89	2.58	3.18	4.41	4.04	2.00	3.31	1.33	3.36	2.96
Camden County	2.11	2.44	1.07	2.46	1.81	2.98	2.99	2.00	1.28	1.97	1.23	1.46	1.98
Cape May County	2.26	.60	.75	....	1.73	1.65	2.62	.50	1.45	1.52	.49	.48	1.17
Cumberland County	1.94	2.32	.96	2.29	2.88	1.15	2.29	1.71	1.32	1.99	1.43	1.06	1.86
Essex County	1.93	2.12	2.04	1.41	1.39	1.79	2.00	1.16	1.22	1.21	1.03	.81	1.51
Gloucester County	2.81	2.17	2.16	1.54	1.16	3.14	1.41	1.39	1.09	1.61	3.43	2.60	2.04
Hudson County	1.74	1.86	1.66	1.99	2.66	1.71	1.58	1.11	.78	.93	.97	.72	1.48
Hunterdon County	1.45	2.03	1.74	1.45	.90	1.80	2.44	.62	.62	1.49	.30	1.78	1.39
Mercer County	1.75	6.04	5.14	3.87	2.35	3.26	6.69	4.43	3.10	4.14	3.89	3.26	3.99
Middlesex County	1.47	1.95	1.05	2.63	1.55	.70	1.92	1.68	1.17	.96	1.19	1.73	1.50
Monmouth County	1.92	2.36	1.63	1.95	2.62	2.47	1.99	2.41	2.16	2.22	2.91	2.87	2.29
Morris County	1.06	1.21	1.75	1.00	2.21	1.75	1.01	.72	1.14	1.34	.92	.78	1.24
Ocean County	1.00	2.98	.49	2.43	3.35	.95	1.41	....	.92	3.28	1.40	1.40	1.63
Passaic County	2.19	2.50	2.02	.75	1.14	1.33	1.19	1.06	.99	1.16	.76	.65	1.31
Salem County	....	1.96	1.96	3.53	2.28	3.03	1.51	2.62	1.49	1.48	2.58	1.10	1.96
Somerset County	.60	.59	1.16	.86	2.48	1.35	.27	2.35	2.31	1.80	3.32	.25	1.45
Sussex County	.41	2.51	.80	1.97	.43	1.71	1.29	3.94	1.32	1.87	.73	.36	1.45
Union County	2.64	2.57	2.32	1.99	1.37	1.66	1.37	2.19	1.67	1.71	.83	1.61	1.83
Warren County	1.85	4.74	1.05	2.35	1.73	1.95	1.43	.71	1.18	2.78	.69	.68	1.76
The State	1.83	2.17	1.92	1.87	1.68	1.86	2.06	1.60	1.28	1.55	1.29	1.22	1.69

TABLE 31.—SHOWING DEATHS FROM TYPHOID FEVER IN NEW JERSEY, FOR YEAR ENDING DECEMBER 31, 1912, AND SHOWING ALSO THE NUMBER OF DEATHS FROM THIS DISEASE IN URBAN AND RURAL DISTRICTS, TOGETHER WITH POPULATION AND DEATHS PER 10,000 INHABITANTS.

	Aggregate population.	Deaths from typhoid fever.	Deaths from typhoid fever per 10,000 population.
State	2,694,377	328	1.22
Cities	1,902,461	234	1.23
Rural Districts	791,916	94	1.19

TABLE 32.—DEATHS FROM TYPHOID FEVER IN NEW JERSEY, BY AGE PERIODS, FOR TWELVE YEARS.

YEARS.	AGE PERIODS.											Totals.
	Under 1 year.	1 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	Over 80.	Not stated.	
1901	2	35	57	107	74	36	17	13	9	1	1	352
1902	1	25	72	124	92	53	33	18	8	1	1	428
1903	3	26	77	108	88	49	19	17	......	....	1	388
1904	2	24	77	108	83	31	35	16	5	3	....	384
1905	3	33	73	86	65	49	28	16	6	1	....	360
1906	1	34	85	110	67	59	28	11	10	3	....	408
1907	......	22	95	149	93	61	27	11	4	2	....	464
1908	3	36	71	96	73	39	25	16	6	2	....	367
1909	8	20	63	68	59	47	23	7	6	....	....	301
1910	1	22	71	108	85	53	32	13	6	1	....	392
1911	1	18	74	93	61	39	30	14	6	1	....	337
1912	......	28	54	90	61	45	29	17	2	2	....	328

TABLE 33.—SANITARY DISTRICTS IN NEW JERSEY IN WHICH DEATHS FROM TYPHOID FEVER OCCURRED DURING THE YEAR ENDING DECEMBER 31, 1912, WITH POPULATION, NUMBER OF DEATHS, SOURCE OF WATER SUPPLY AND NATURE OF DRAINAGE.

NAME OF SANITARY DISTRICT.	Population, census 1910.	Number of deaths from typhoid fever.	Water-supply.	Drainage.
Acquackanonk Township	11,869	1	Domestic	No sewers
Asbury Park City	10,150	2	Public	Sewers
Atlantic City	46,150	9	Public	Sewers
Bayonne City	55,545	6	Public	Sewers
Bernards Township	4,608	1	Partial	No sewers
Beverly Township	2,337	1	Partial	Partial
Bloomsbury Borough	600	1	Partial	Partial
Bradley Beach Borough	1,807	1	Public	Sewers
Bridgeton City	14,209	2	Public	Sewers
Buena Vista Township	2,723	1	Domestic	No sewers
Camden City	94,538	14	Public	Sewers
Chester Township (Bur. Co.)	5,069	3	Partial	Partial
Clayton Borough	1,926	1	Public	No sewers
Cliffside Park Borough	3,394	2	Public	Sewers
Deptford Township	2,524	1	Domestic	No sewers
Dover Town	7,468	1	Public	No sewers
Dunellen Borough	1,990	2	Public	No sewers
East Orange City	34,371	2	Public.	Sewers
East Windsor Township	941	2	Domestic	No sewers
Eatontown Township	2,076	1	Domestic	No sewers
Elizabeth City	73,409	15	Public	Sewers
Englewood City	9,924	4	Public	Sewers
Florence Township	4,731	2	Domestic	Sewers
Freehold Town	3,233	2	Public	Sewers
Glen Ridge Borough	3,260	1	Public	Sewers
Gloucester City	9,462	4	Public	Sewers
Gloucester Township	2,380	1	Partial	Partial
Greenwich Township (War. Co.)	904	1	Domestic	No sewers
Hackensack Town	14,050	3	Public	Sewers
Haddonfield Borough	4,142	1	Partial	Partial
Hammonton Town	5,088	5	Public	Sewers
Hampton Borough	914	1	Domestic	No sewers
Hanover Township	6,228	1	Partial	Partial
High Bridge Borough	1,545	1	Public	No sewers
Hoboken City	70,324	6	Public	Sewers
Jamesburg Borough	2,075	1	Public	No sewers
Jersey City	267,779	22	Public	Sewers
Lakewood Township	5,149	1	Partial	Partial
Landis Township	6,435	1	Domestic	No sewers
Linden Township	1,988	1	Partial	No sewers
Little Falls Township	3,750	1	Public	No sewers
Long Branch City	13,298	14	Public	Sewers
Lower Penns Neck Township	1,544	1	Domestic	No sewers
Matawan Township	1,472	1	Domestic	No sewers
Maurice River Township	2,124	1	Domestic	No sewers
Medford Township	1,903	3	Domestic	Sewers
Merchantville Borough	1,996	1	Public	Sewers
Middle Township	2,974	1	Domestic	No sewers
Middletown Township	6,653	1	Domestic	No sewers
Millburn Township	3,720	1	Public	Sewers
Millstone Township	1,461	1	Domestic	No sewers
Millville City	12,451	2	Public	Sewers
Monroe Township (Gloucester Co.)	3,015	1	Domestic	No sewers
Montclair Town	21,550	3	Public	Sewers
Morristown Town	12,507	4	Public	Sewers
Neptune Township	5,551	1	Public	Sewers
Newark City	347,469	32	Public	Sewers
New Brunswick City	23,388	9	Public	Sewers
Northampton Township	5,652	9	Public	Sewers
Nutley Town	6,009	1	Public	Sewers
Orange City	29,630	5	Public	Sewers
Passaic City	54,773	6	Public	Sewers
Paterson City	125,600	7	Public	Sewers
Paulsboro Borough	2,121	2	Public	No sewers
Pemberton Township	1,679	1	Domestic	No sewers
Perth Amboy City	32,121	3	Public	Sewers

TABLE 33.—SANITARY DISTRICTS IN NEW JERSEY IN WHICH DEATHS FROM TYPHOID FEVER OCCURRED DURING THE YEAR ENDING DECEMBER 31, 1912, WITH POPULATION, NUMBER OF DEATHS, SOURCE OF WATER SUPPLY AND NATURE OF DRAINAGE.—Continued.

NAME OF SANITARY DISTRICT.	Population, census 1910.	Number of deaths from typhoid fever.	Water supply.	Drainage.
Phillipsburg Town	13,903	2	Public	Sewers
Pitman Grove Borough	1,950	1	Public	No sewers
Plainfield City	20,550	3	Public	Sewers
Plumsted Township	1,123	1	Domestic	No sewers
Rahway City	9,337	3	Public	Sewers
Raritan Township (Hunterdon Co.)	1,310	1	Domestic	No sewers
Readington Township	2,569	1	Domestic	No sewers
Riverton Borough	1,788	1	Public	Sewers
Rumson Borough	1,449	2	Public	Sewers
Rutherford Borough	7,045	1	Public	Sewers
Sayreville Township	5,783	1	Domestic	No sewers
Secaucus Borough	4,740	1	Public	Sewers
South River Borough	4,772	2	Public	Sewers
Springfield Township (Bur. Co.)	1,278	2	Domestic	No sewers
Spring Lake Borough	853	2	Public	Sewers
Stafford Township	934	1	Domestic	No sewers
Stillwater Township	796	1	Domestic	No sewers
Summit City	7,500	1	Public	Sewers
Town of Union	21,023	1	Public	Sewers
Trenton City	96,815	41	Public	Sewers
Union Township (Hunterdon Co.)	930	1	Domestic	No sewers
Union Township (Union Co.)	3,419	1	Public	Sewers
Upper Pittsgrove Township	1,754	1	Domestic	No sewers
Voorhees Township	1,174	1	Domestic	No sewers
Washington Township (Bur. Co)	597	1	Domestic	No sewers
Weehawken Township	11,228	4	Public	Sewers
West Deptford Township	2,057	1	Domestic	No sewers
West Hoboken Town	35,403	1	Public	Sewers
Westwood Borough	1,870	1	Public	Sewers
Woodbridge Township	8,948	3	Public	Sewers
Woodbury City	4,642	3	Public	Sewers
Woodstown Borough	1,613	1	Public	Sewers

TABLE 34.—DEATHS FROM SCARLET FEVER, DIPHTHERIA AND TYPHOID FEVER IN NEW JERSEY FOR THE THIRTY-FOUR YEARS ENDING DECEMBER 31, 1912, COMPARED WITH TOTAL DEATHS.

YEARS.	Population.	Total deaths.	Death-rate per 1,000 population.	SCARLET FEVER.		DIPHTHERIA.		TYPHOID FEVER.	
				Number of deaths.	Death-rate per 1,000 population.	Number of deaths.	Death-rate per 1,000 population.	Number of deaths.	Death-rate per 1,000 population.
1879......	....	20,440	18.07	627	.61	1,100	1.09	324	.32
1880......	1,130,892	18,967	16.77	573	.51	873	.77	373	.33
1881......	....	20,810	18.39	499	.43	1,128	.97	574	.49
1882......	....	25,910	22.90	1,306	1.01	1,472	1.24	884	.74
1883......	....	23,310	20.60	853	.71	1,146	.95	564	.47
1884......	....	21,716	19.20	547	.44	1,027	.82	640	.51
1885......	1,278,033	23,807	18.63	646	.51	1,496	1.17	642	.50
1886......	....	22,734	17.80	222	.17	1,303	.99	545	.42
1887......	....	24,331	19.04	255	.19	1,527	1.14	522	.39
1888......	....	27,173	17.01	574	.42	2,036	1.48	620	.45
1889......	....	26,543	18.99	533	.38	1,574	1.12	724	.51
1890......	1,441,017	28,530	19.80	209	.15	1,575	1.09	782	.54
1891......	....	28,840	19.50	288	.19	1,737	1.17	695	.47
1892......	....	32,685	21.62	1,008	.67	1,776	1.17	628	.42
1893......	....	30,596	19.88	445	.29	1,677	1.09	506	.33
1894......	....	30,004	19.09	272	.17	1,294	.82	485	.31
1895......	1,672,942	30,634	18.31	264	.16	1,464	.88	568	.34
1896......	....	30,767	17.90	183	.11	1,758	1.02	577	.34
1897......	....	29,822	16.90	203	.12	1,382	.78	478	.27
1898......	....	27,337	15.11	201	.11	950	.52	450	.25
1899......	....	30,999	16.70	187	.10	777	.42	486	.26
1900......	1,883,669	31,474	16.62	220	.12	927	.49	356	.19
1901......	....	31,739	16.48	179	.09	683	.36	352	.19
1902......	....	31,319	15.91	217	.11	683	.35	428	.22
1903......	....	31,820	15.78	299	.15	748	.37	388	.19
1904......	....	35,298	17.14	416	.20	918	.45	384	.19
1905......	2,144,143	33,864	15.79	164	.07	699	.33	360	.17
1906......	....	35,670	16.24	193	.09	673	.31	408	.19
1907......	....	37,408	16.63	286	.13	632	.29	464	.21
1908......	....	35,597	15.47	396	.17	535	.23	367	.16
1909......	....	36,359	15.46	338	.14	610	.26	301	.13
1910......	2,537,167	39,494	15.57	229	.09	728	.29	392	.16
1911......	2,615,772	38,612	14.76	214	.08	568	.22	337	.13
1912......	2,694,377	37,772	14.02	146	.05	481	.18	328	.12

TABLE 35.—SHOWING DEATHS FROM TYPHOID FEVER AND DEATHS PER 10,000 INHABITANTS FROM TYPHOID FEVER IN THE COUNTIES OF NEW JERSEY FOR YEAR ENDING DECEMBER 31, 1912, ALSO CHART SHOWING DEATHS FROM TYPHOID FEVER PER 10,000 INHABITANTS IN THE COUNTIES OF NEW JERSEY FOR SAME PERIOD.

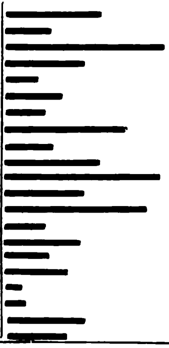
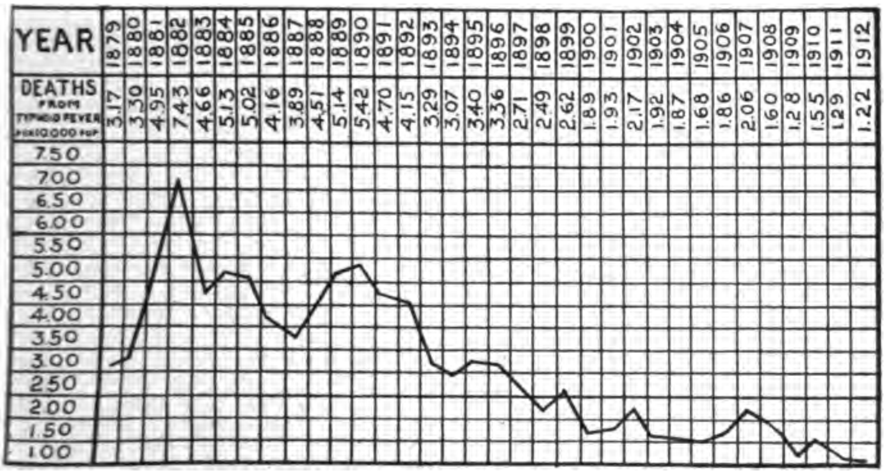
NAME OF COUNTIES	Number of deaths from typhoid fever.	Deaths from typhoid fever per 10,000 inhabitants.	Chart showing deaths from typhoid fever per 10,000 inhabitants.
Atlantic County	15	1.96	
Bergen County	11	.72	
Burlington County	23	3.36	
Camden County	22	1.46	
Cape May County	1	.48	
Cumberland County	6	1.06	
Essex County	45	.81	
Gloucester County	10	2.60	
Hudson County	41	.72	
Hunterdon County	6	1.78	
Mercer County	43	3.26	
Middlesex County	21	1.73	
Monmouth County	28	2.87	
Morris County	6	.78	
Ocean County	3	1.40	
Passaic County	15	.65	
Salem County	3	1.10	
Somerset County	1	.25	
Sussex County	1	.36	
Union County	24	1.61	
Warren County	3	.68	

CHART SHOWING DEATHS FROM TYPHOID FEVER IN NEW JERSEY, PER 10,000 POPULATION FOR THIRTY-FOUR YEARS.



YEAR	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
DEATHS FROM TYPHOID FEVER PER 10,000 POP.	3.17	3.30	4.95	7.43	4.66	5.13	5.02	4.16	3.89	4.51	5.14	5.42	4.70	4.15	3.29	3.07	3.40

YEAR	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
DEATHS FROM TYPHOID FEVER PER 10,000 POP.	3.36	2.71	2.49	2.62	1.89	1.93	2.17	1.92	1.87	1.68	1.86	2.06	1.60	1.28	1.55	1.29	1.22

WHOOPING COUGH.

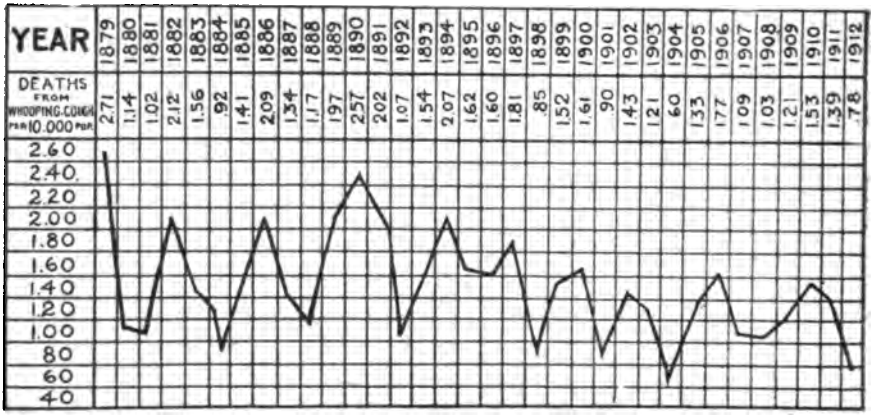
The number of deaths from whooping cough for the calendar year 1912 was 211 and the death rate per 10,000 inhabitants .78.

The control of whooping cough by Local Boards of Health is a difficult proposition, and until some method is devised providing for the early discovery of this disease and the isolation of suspected cases, together with reasonable quarantine of those affected with the disease, there is little hope of a material decrease in the death rates.

TABLE 36.—SHOWING DEATHS IN NEW JERSEY FROM WHOOPING COUGH, WITH AGES OF DECEDENTS, FOR YEAR ENDING DECEMBER 31, 1912.

AGE PERIODS.	Deaths from whooping cough.	AGE PERIODS.	Deaths from whooping cough.	AGE PERIODS.	Deaths from whooping cough.
Under 1 month	8	20 to 25	....	50 to 55	....
Under 1 year	100	25 to 30	....	55 to 60	....
1 to 5	99	30 to 35	....	60 to 70	....
5 to 10	3	35 to 40	1	70 to 80	....
10 to 15	....	40 to 45	....	80 to 90	....
15 to 20	....	45 to 50	....	Over 90	....
				Total	211

CHART SHOWING DEATHS FROM WHOOPING COUGH IN NEW JERSEY, PER 10,000 POPULATION, FOR THE THIRTY-FOUR YEARS ENDING DECEMBER 31, 1912.



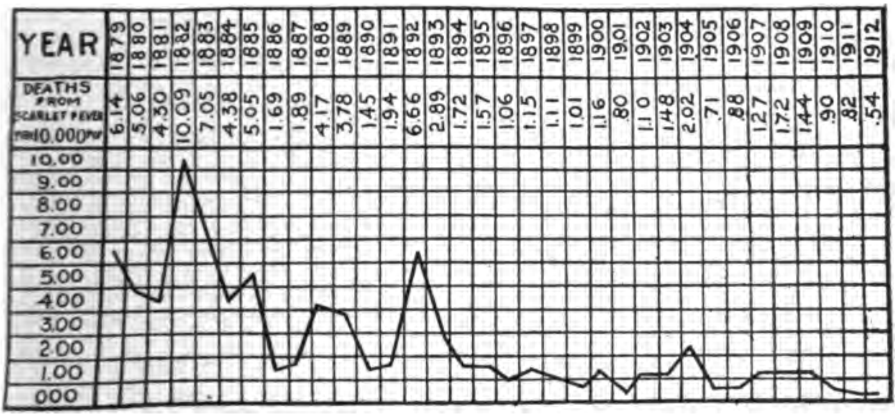
SCARLET FEVER.

For the year ending December 31, 1912, 146 deaths from scarlet fever took place in New Jersey, and while the death rate from this disease has been slowly decreasing for the past 34 years, the lowest rate was reached during the year 1912, and attention is called to the chart herewith showing the rates per 10,000 population from scarlet fever during the past 34 years.

TABLE 37.—SHOWING DEATHS IN NEW JERSEY FROM SCARLET FEVER WITH AGE AT DEATH, FOR YEAR ENDING DECEMBER 31, 1912.

AGE PERIODS.	Deaths from scarlet fever.	AGE PERIODS.	Deaths from scarlet fever.	AGE PERIODS.	Deaths from scarlet fever.
Under 1 month. . . .	. . . .	25 to 30.	3	60 to 70.	. . . .
Under 1 year.	2	30 to 35.	1	70 to 80.	. . . .
1 to 5.	71	35 to 40.	3	80 to 90.	. . . .
5 to 10.	36	40 to 45.	. . . .	Over 90.	. . . .
10 to 15.	11	45 to 50.	. . . .		. . . .
15 to 20.	11	50 to 55.	. . . .		. . . .
20 to 25.	8	55 to 60.	. . . .	Total.	146

CHART SHOWING DEATHS FROM SCARLET FEVER IN NEW JERSEY, PER 10,000 POPULATION, FOR THIRTY-FOUR YEARS.



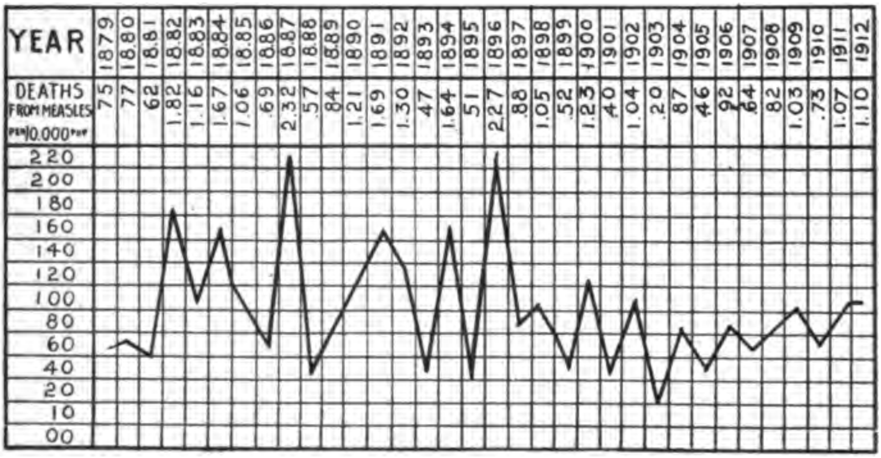
MEASLES.

The number of deaths from measles for the year ending December 31, 1912, was 296, and the death rate for 10,000 population was 1.10.

TABLE 38.—SHOWING DEATHS IN NEW JERSEY FROM MEASLES, WITH AGE AT DEATH, FOR YEAR ENDING DECEMBER 31, 1912.

AGE PERIODS.	Deaths from measles.	AGE PERIODS.	Deaths from measles.	AGE PERIODS.	Deaths from measles.
Under 1 month	2	25 to 30	....	60 to 70	....
Under 1 year	72	30 to 35	....	70 to 80	....
1 to 5	201	35 to 40	....	80 to 90	....
5 to 10	19	40 to 45	....	Over 90	....
10 to 15	1	45 to 50	....		....
15 to 20	1	50 to 55	....	....	....
20 to 25	....	55 to 60	....	Total	296

CHART SHOWING DEATHS IN NEW JERSEY FROM MEASLES, PER 10,000 POPULATION FOR THIRTY-FOUR YEARS ENDING DECEMBER 31, 1912.



YEAR	DEATHS FROM MEASLES PER 10.000 POP
1879	.75
1880	.77
1881	.62
1882	1.82
1883	1.16
1884	1.67
1885	1.06
1886	.69
1887	2.32
1888	.57
1889	.84
1890	1.21
1891	1.69
1892	1.30
1893	.47
1894	1.64
1895	.51
1896	2.27
1897	.88
1898	1.05
1899	.52
1900	1.23
1901	.40
1902	1.04
1903	.20
1904	.87
1905	.46
1906	.92
1907	.64
1908	.82
1909	1.03
1910	.73
1911	1.07
1912	1.10

MALARIAL FEVER.

The gradual decrease in deaths and the cases of malarial fever in New Jersey leads to a study of the subject more closely with the hope that this disease may be reduced to the lowest possible minimum, although as long as Anopheles, or the malaria carrying mosquito, exists, we will have more or less malarial fever.

The first definite step for the general extermination of the mosquito in New Jersey was made when the legislature, during the session of 1902, passed an act which provides for an investigation and report by the New Jersey Agricultural Experiment Station upon the mosquito problem, in relation to the sanitary, agricultural and other interests of the state, and the sum of $10,000 was appropriated to carry on the work.

In 1904 the late John B. Smith, Sc. D., Entomologist to the Experiment Station, published a report upon mosquitoes of New Jersey, which is probably one of the most valuable contributions on the subject ever prepared.

It would be impossible in a brief review of this subject to give even an outline of the great work in New Jersey for the extermination of the mosquito, the number of lives saved, or the increased value to property because of such improvements, however, one conservative gentleman who contributed $50 to a fund for cleaning out a large breeding area, stated that this outlay had increased the value of his property holdings about $10,000, however, such large increases in valuation compared with so small an outlay would be rare, but there is no doubt that with judicious expenditure in certain parts of New Jersey increase in valuation would be great.

Attention is called to the figures showing the number of deaths from malarial fever in New Jersey for the years 1879, 1880 and 1881 compared with those of 1910, 1911 and 1912. The first three years having an average of 330 deaths, while the last three years have an average of only 26 deaths, or yearly saving of 304 lives.

Various estimates have been placed upon the value of a human life, and while no attempt will be made to compare the value of a human life with a certain amount of money, there is certainly gratification in the fact that over 300 lives are saved in New Jersey each year, from malarial fever alone, compared with the figures of 33 years ago, and there is no doubt that this condition has been largely brought about by the continual warfare against mosquitoes, coupled with the increased knowledge in caring for persons suffering with the disease, such as proper screening of the sick-room, early diagnosis of the disease by bacteriological examination of a specimen of the blood, etc.

In this respect it is interesting to refer to the statement made by Mr. C. K. Brain, F.E.S., Entomologist, Ohio State Board of Health, who in an article referring to insects and the transmission of diseases writes as follows:

> "Thus, for example, there may be millions of Anopheles mosquitoes in a district where no malaria exists and annoyance is their chief ill to man, but if a case of malaria be introduced, the outlook is at once altered. Under these conditions it is obvious that the first attention should not be given to the million mosquitoes but rather to screening the patient to keep the mosquitoes from gaining infection, and then to institute the means of mosquito extermination. As a matter of fact this should be carried further, and as soon as it is shown in any other part of the world, that an insect is a menace to public health, a universal effort should be made for its extermination."

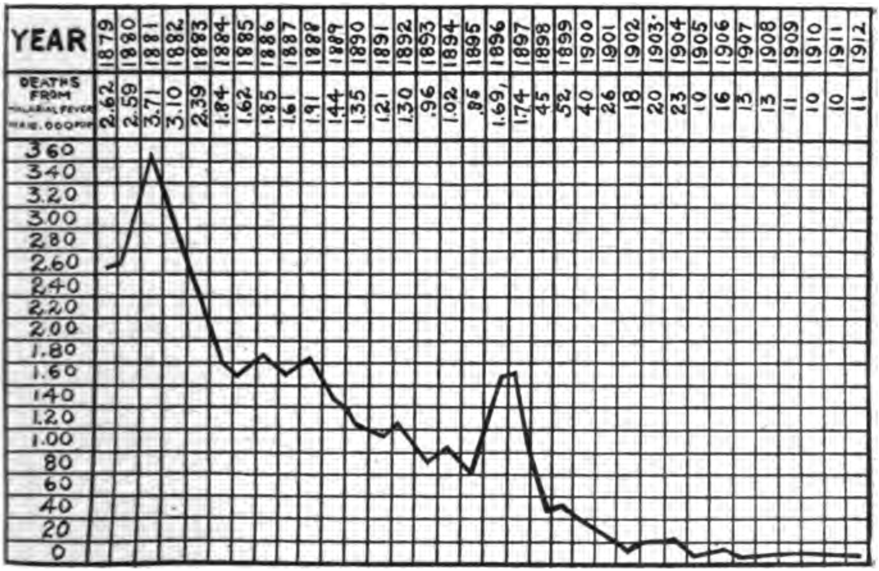
Deaths from malarial fever in New Jersey, for the year 1912, have not been confined to any particular locality, but are distributed amongst the several counties, however, those places showing the largest number of deaths are as follows: Camden County 4, Essex County 2, Gloucester County 3, Hudson County 3, Monmouth County 3, Somerset County 3, Union County 3. It is thus shown that seven of the twenty-one counties in New Jersey had two-thirds of all the deaths from malaria in 1912.

At the session of the legislature of 1912, further attention was given to the extermination of mosquitoes by an act providing for the establishment of County Mosquito Extermination Commissions, and it is hoped by this means to have a continued warfare against mosquitoes, and thus prevent further mortality from malarial fever, not to mention the increased benefit to be derived by the people of the state in increased land values and freedom from the annoyance of these pests.

TABLE 39.—SHOWING DEATHS IN NEW JERSEY FROM MALARIAL FEVER FOR THIRTY-FOUR YEARS.

YEARS.	Deaths from malarial fever.	YEARS.	Deaths from malarial fever.	YEARS.	Deaths from malarial fever.
1879	268	1890	195	1901	50
1880	293	1891	180	1902	36
1881	431	1892	198	1903	40
1882	379	1893	148	1904	47
1883	290	1894	162	1905	21
1884	230	1895	144	1906	33
1885	209	1896	119	1907	29
1886	243	1897	132	1908	30
1887	217	1898	82	1909	25
1888	264	1899	96	1910	25
1889	203	1900	84	1911	25
				1912	29

CHART SHOWING DEATHS FROM MALARIAL AFFECTIONS, PER 10,000 INHABITANTS, IN NEW JERSEY, FOR THIRTY-FOUR YEARS.



SMALL-POX.

During the calendar year 1912 two deaths from small-pox occurred in New Jersey. No serious outbreaks of this disease have occurred for several years, however, it is important that local boards of health require vaccination of all children, and in case the disease appears in a community, revaccination should be recommended.

TABLE 40.—SHOWING DEATHS IN NEW JERSEY FROM SMALL-POX FOR THIRTY-FOUR YEARS.

YEARS.	Deaths from small-pox	YEARS	Deaths from small-pox	YEARS.	Deaths from small-pox
1879	....	1890	....	1901	142
1880	15	1891	....	1902	432
1881	254	1892	38	1903	16
1882	367	1893	43	1904	24
1883	54	1894	11	1905	1
1884	7	1895	23	1906	1
1885	2	1896	2	1907	1
1886	4	1897	....	1908	....
1887	5	1898	....	1909	2
1888	5	1899	....	1910	....
1889	3	1900	5	1911	1
				1912	2

CANCER.

The gradual increase in the number of deaths from cancer continues in this state, and the chart showing the figures for the past 34 years indicates rather an alarming condition regarding this disease.

Table 42, which shows the number of deaths from cancer in New Jersey from 1901 to 1912 inclusive shows that the number of deaths from this disease have doubled during the past 12 years.

TABLE 41.—SHOWING DEATHS FROM CANCER IN NEW JERSEY FOR THIRTY-FOUR YEARS.

YEARS.	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888
Deaths from cancer...........	378	425	451	402	461	484	498	546	574	612
Deaths from cancer per 10,000 population..........	3.70	3.75	3.88	3.37	3.81	3.87	3.89	4.15	4.21	4.45

YEARS.	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
Deaths from cancer....	579	640	642	688	723	731	770	811	857	852	946
Deaths from cancer per 10,000 population....	4.11	4.41	4.34	4.55	4.69	4.63	4.60	4.71	4.33	4.70	5.10

YEARS.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Deaths from cancer...	921	1,042	1,031	1,132	1,125	1,282	1,389	1,466	1,535	1,663	1,838	1,942	2,026
Deaths from cancer per 10,000 population	4.84	5.43	5.24	5.61	5.46	5.98	6.32	6.52	6.67	7.07	7.24	7.42	7.52

TABLE 42.—DEATHS FROM CANCER IN NEW JERSEY, BY AGE PERIODS, FOR TWELVE YEARS.

YEARS.	AGE PERIODS.											Totals.
	Under 1 year.	1 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	Over 80.	Not stated.	
1901...........	1	6	9	19	85	196	280	240	159	47	1	1,043
1902...........	1	.7	5	24	92	190	322	216	136	31	7	1,031
1903...........	......	10	2	22	79	179	293	308	177	57	5	1,132
1904...........	7	5	9	21	81	168	286	302	199	47	.....	1,125
1905...........	6	15	11	22	87	239	294	353	190	64	1	1,282
1906...........	2	12	6	25	104	241	350	350	225	74	.....	1,389
1907...........	1	8	14	23	91	244	377	369	262	77	.....	1,466
1908...........	1	13	9	27	118	260	377	414	236	80	.....	1,535
1909...........	2	9	4	26	104	260	437	435	282	104	.....	1,663
1910...........	2	14	10	32	106	299	462	499	316	98	.....	1,838
1911...........	3	8	9	31	109	310	495	535	333	109	.....	1,942
1912...........	......	11	8	28	147	338	507	517	356	114	.....	2,026

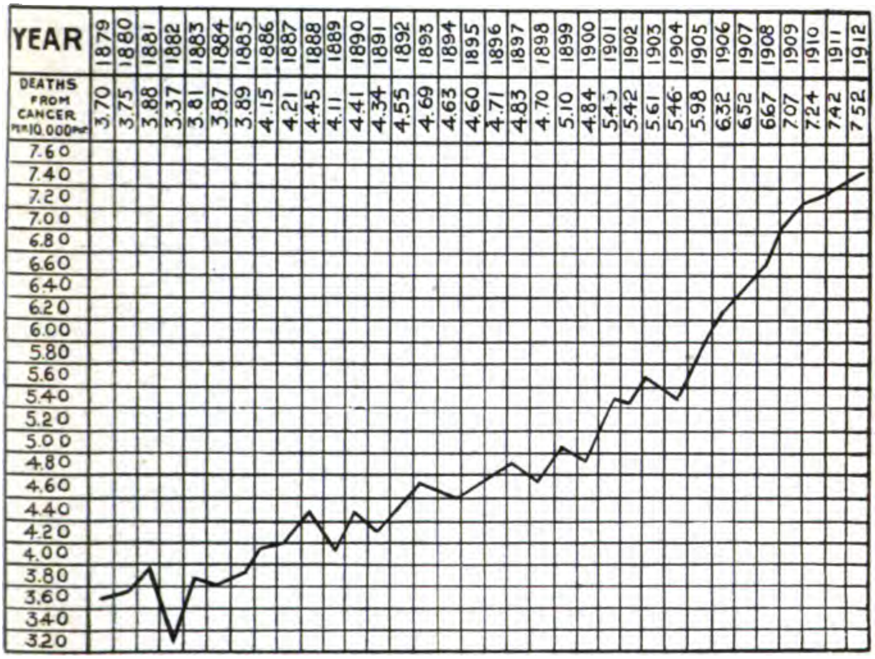
TABLE 43.—DEATHS FROM CANCER IN NEW JERSEY, SHOWING ORGANS AFFECTED AND AGE AT DEATH, FOR THE YEAR ENDING DECEMBER 31, 1912.

CANCER.	Under 1 month.	Under 1 year.	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 70	70 to 80	80 to 90	Over 90	Age not stated.	Totals.
Of the mouth....	..	..	...	...	...	...	...	3	1	2	4	10	2	16	25	19	5	.....	..	87
Of the stomach and liver......	..	..	2	1	1	1	2	8	17	40	53	68	130	119	263	175	56	4		940
Of the intestines and rectum....	..	..	4	...	1	...	1	4	6	11	15	23	24	34	71	58	11	1	..	264
Of the female genital organs.	..	..	...	...	...	...	3	4	4	26	41	49	46	26	59	33	18			304
Of the breast....	..	..	...	...	...	...	...	...	8	7	19	24	25	29	49	30	5	.....	..	196
Of the skin......	..	..	...	...	...	...	...	...	2	2	3	3	5	9	16	15	4	1		60
Others..........	..	..	2	2	2	3	2	1	4	17	13	13	20	22	34	26	14	.....	..	175
Totals......	..	..	8	3	4	4	8	20	42	105	148	190	252	255	517	356	108	6		2,026

TABLE 44.—DEATHS FROM CANCER IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912, PER 10,000 POPULATION, BY COUNTIES AND BY CITIES OF OVER 5,000 INHABITANTS.

NAME OF PLACE.	Deaths from cancer.	Deaths per 10,000 population.
Atlantic County	19	8.74
Atlantic City	45	9.08
Hammonton		
Bergen County	57	5.63
Englewood	11	10.26
Garfield	5	4.08
Hackensack	16	10.50
Ridgewood	7	11.69
Rutherford	7	9.00
Burlington County	39	7.01
Bordentown	6	13.89
Burlington City	9	10.64
Camden County	33	8.01
Camden City	79	7.98
Gloucester City	5	4.99
Cape May County	15	7.25
Cumberland County	19	8.02
Bridgeton	14	9.69
Millville	4	3.16
Vineland	5	9.00
Essex County	23	7.02
Bloomfield	7	4.26
East Orange	23	6.04
Irvington	14	10.18
Montclair	21	8.89
Newark	299	8.01
Nutley	4	6.07
Orange	31	9.99
South Orange	6	9.31
West Orange	8	6.55
Gloucester County	32	8.31
Hudson County	35	9.06
Bayonne	31	5.09
Guttenberg	4	6.58
Harrison	11	7.25
Hoboken	58	8.83
Jersey City	187	6.64
Kearny	9	4.35
Town of Union	14	6.19
West Hoboken	15	3.95
West New York	12	7.45
Hunterdon County	24	8.22
Lambertville	6	13.29
Mercer County	16	6.38
Princeton	2	4.18
Trenton	81	7.95
Middlesex County	30	5.98
New Brunswick	30	12.77
Perth Amboy	24	6.93
Roosevelt	1	1.73
South Amboy	1	1.37
Monmouth County	50	7.88
Asbury Park	10	8.06
Long Branch	20	14.55
Red Bank	6	7.64
Morris County	46	8.09
Dover	8	10.11
Morristown	15	11.86
Ocean County	14	6.52
Passaic County	20	5.11
Passaic City	37	6.01
Paterson	114	8.69
Salem County	13	6.31
Salem City	12	17.96
Somerset County	11	3.88
North Plainfield	8	12.66
Somerville	6	11.60
Sussex County	18	6.39
Union County	16	6.35
Elizabeth	62	7.89
Plainfield	28	13.09
Rahway	17	17.69
Summit	9	11.59
Westfield	6	8.72
Warren County	21	6.96
Phillipsburg	5	3.54
Total in cities of over 5,000 inhabitants	1,475	
Total for State	551	
Rate per 10,000 population (State)		7.52

CHART SHOWING DEATHS IN NEW JERSEY FROM CANCER, PER 10,000 POPULATION, FOR THIRTY-FOUR YEARS, 1879-1912.



YEAR	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
DEATHS FROM CANCER PER 10.000 POP.	3.70	3.75	3.88	3.37	3.81	3.87	3.89	4.15	4.21	4.45	4.11	4.41	4.34	4.55	4.69	4.63	4.60

YEAR	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
DEATHS FROM CANCER PER 10.000 POP.	4.71	4.83	4.70	5.10	4.84	5.43	5.42	5.61	5.46	5.98	6.32	6.52	6.67	7.07	7.24	7.42	7.52

SUICIDE.

For the calendar year ending December 31, 1912, 411 deaths from suicide took place in New Jersey, which practically corresponds with the normal death rate from this cause during past years.

Table 45 shows the number of deaths in New Jersey from suicide during the last 12 years, and table 46 shows the mode of death and the age period at death.

TABLE 45.—SHOWING NUMBER OF DEATHS BY SUICIDE RECORDED IN NEW JERSEY, BY CITIES, AND BY COUNTIES, EXCLUSIVE OF CITIES, FOR THE YEAR ENDING DECEMBER 31, 1912.

NAME OF PLACE.	COUNTRY OF BIRTH.													
	United States.	England.	France.	Germany.	Ireland.	Italy.	Scotland.	Hungary.	Sweden.	Russia.	Holland.	Other foreign.	Not stated.	Total.
Atlantic County														2
Atlantic City	8			2						1			1	12
Hammonton														
Bergen County														16
Englewood	2													2
Garfield										1				1
Hackensack	2			2								1		5
Ridgewood														
Rutherford	2													2
Burlington County														13
Bordentown														
Burlington	1													1
Camden County														8
Camden City	5			1										6
Gloucester City	2													2
Cape May County														2
Cumberland County														3
Bridgeton	4					1								5
Millville														
Vineland						1								1
Essex County														5
Bloomfield	2	1								2				5
East Orange	2													2
Irvington				2										2
Montclair	2						1						1	4
Newark	28	4		15	1		1	3		5		2	4	63
Nutley														
Orange	1													1
South Orange	1													1
West Orange	2	2								1			2	7
Gloucester County														2
Hudson County														15
Bayonne				2			1							3
Guttenberg				3										3
Harrison							1							1
Hoboken	8			6		3							3	20
Jersey City	12	2	1	7	3	1		1	1	2	1	2	2	35
Kearny														
Town of Union	4			3				1						8
West Hoboken	2			4		2		1	1			1		11
West New York	1			4		1								6
Hunterdon County														7
Lambertville														
Mercer County														3
Princeton														
Trenton	11			3	2	1		1						18
Middlesex County														5
New Brunswick	1													1
Perth Amboy				1				1						2
Roosevelt	1							1						2
South Amboy	1								1					2
Monmouth County														9
Asbury Park														
Long Branch	1				1	1								3
Red Bank				1										1
Morris County														3
Dover										1				1
Morristown	1								1					2
Ocean County														1
Passaic County														6
Passaic City	1			1		1				2				5
Paterson	8	3		3		1				2	1		2	20
Salem County														4
Salem City	1													1
Somerset County														3
North Plainfield														
Somerville	1												1	2
Sussex County														5
Union County														8
Elizabeth				3	1	1		1		2		1		9
Plainfield	3							1						4
Rahway				1										1
Summit	2													2
Westfield														
Warren County														8
Phillipsburg	3													3
Totals	126	12	1	64	8	14	4	11	4	19	2	7	16	411

TABLE 46.—SHOWING DEATHS IN NEW JERSEY FROM SUICIDE FOR TWELVE YEARS, 1901-1912.

YEARS.	Deaths from suicide.	YEARS.	Deaths from suicide.
1901	265	1907	387
1902	271	1908	448
1903	314	1909	432
1904	330	1910	444
1905	354	1911	414
1906	338	1912	411

TABLE 47.—DEATHS IN NEW JERSEY FROM SUICIDE, SHOWING MODE OF DEATH AND AGE AT DEATH, FOR THE YEAR ENDING DECEMBER 31, 1912.

MODE OF DEATH.	AGE AT DEATH.																	Totals.
	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 70	70 to 80	80 to 90	Over 90	Not stated.	
By poison	...	...	...	9	12	9	10	5	12	7	5	6	7	2	...	.....	..	84
By asphyxia	...	...	...	2	4	9	7	8	6	14	8	13	10	4	...	.....	..	85
By strangulation	...	...	1	...	1	6	6	6	7	12	10	14	9	5	1	.....	..	78
By drowning	...	...	...	...	1	2	...	1	2	...	4	2	4	...	...	.....	..	16
By firearms	1	1	...	2	12	8	16	19	17	6	7	10	10	6	...	.....	..	115
By cutting instruments	...	...	...	...	...	...	5	2	3	2	2	2	7	...	1	.....	..	24
By precipitation from height	...	...	...	...	1	1	...	1	1	1	...	...	...	1	1	.....	..	7
By crushing	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	.....	..	1
Others	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	.....	..	1
Totals	1	1	1	13	31	36	44	42	48	42	36	47	48	18	3	.....	..	411

BRIGHT'S DISEASE.

The number of deaths from Bright's disease in New Jersey for the past 12 years is given in table 48. It will be noticed that the number of deaths from this disease have more than doubled during the said period of time.

TABLE 48.—SHOWING NUMBER OF DEATHS FROM BRIGHT'S DISEASE IN NEW JERSEY, IN COUNTIES, EXCLUSIVE OF CITIES, AND IN CITIES OF OVER 5,000 INHABITANTS, FOR TWELVE YEARS.

NAMES OF COUNTIES AND CITIES.	DEATHS FROM BRIGHT'S DISEASE.											
	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Atlantic County	13	14	15	21	25	21	26	25	25	27	24	46
Atlantic City	36	32	34	38	60	66	66	81	78	80	60	82
Hammonton											2	2
Bergen County	25	22	31	47	37	61	49	50	62	60	60	60
Englewood	2	5	7	5	7	5	7	11	12	10	6	9
Garfield							2	4	1	4	6	6
Hackensack	8	3	8	8	16	12	9	8	17	12	19	10
Ridgewood											3	11
Rutherford									2	2	3	7
Burlington County	40	28	39	47	46	46	44	75	47	67	58	69
Bordentown				5	3	11	4	2	4	5	11	1
Burlington	9	10	12	10	12	10	14	10	13	19	17	10
Camden County	12	17	29	20	27	25	31	38	32	51	43	59
Camden	64	87	84	106	113	113	131	114	183	132	142	134
Gloucester City	2	5	11	6	6	7	7	15	12	17	10	11
Cape May County	2	7	10	12	11	22	18	15	24	21	38	21
Cumberland County	15	16	22	27	19	22	21	24	26	26	21	31
Bridgeton	11	22	24	24	13	15	19	12	21	30	20	21
Millville	7	5	3	8	12	8	9	15	8	8	17	13
Vineland											8	6
Essex County	17	15	19	23	21	26	26	28	31	47	36	36
Bloomfield	5	6	1	5	7	9	11	10	12	8	13	8
East Orange	11	20	20	20	15	12	25	24	15	30	30	33
Irvington	1	4	8	6	2	11	7	6	9	11	10	11
Montclair	11	5	9	13	11	19	14	12	23	21	18	32
Newark	249	255	308	287	279	359	403	328	398	377	404	380
Nutley											3	4
Orange	19	20	38	20	18	34	36	30	33	28	33	41
South Orange											8	6
West Orange	7	2	7	5	7	7	7	4	6	5	6	3
Gloucester County	17	12	32	23	28	38	32	33	36	31	45	56
Hudson County	39	13	22	29	36	27	49	36	35	36	65	44
Bayonne	16	21	25	23	29	31	38	39	28	62	57	66
Guttenberg											11	4
Harrison	3	2	7	9	9	12	12	12	9	8	10	13
Hoboken	41	57	78	80	75	112	111	67	87	88	99	104
Jersey City	140	158	179	194	236	279	293	266	299	285	338	329
Kearny		7	7	10	6	10	8	15	12	15	15	15
Town of Union	14	12	19	15	14	16	24	20	25	11	20	21
West Hoboken		21	14	12	29	23	27	40	29	35	38	33
West New York		4	9	5	8	5	5	8	12	6	7	14
Hunterdon County	17	12	22	26	28	43	42	31	34	40	41	35
Lambertville							3	1	8	7	1	4
Mercer County	6	13	9	9	8	24	18	15	13	33	17	20
Princeton							3	4	6	4	6	2
Trenton	3	54	60	71	74	87	103	88	96	119	126	89
Middlesex County	22	18	20	18	25	25	41	32	35	35	32	31
New Brunswick	18	19	26	19	28	13	23	19	29	22	29	23
Perth Amboy	9	11	9	5	17	23	22	20	18	26	23	27
Roosevelt											2	2
South Amboy	2	5	3	4	1	7	4	8	5	11	3	4
Monmouth County	42	50	55	57	48	62	56	59	60	80	75	97
Asbury Park							11	17	13	21	14	19
Long Branch	13	10	13	8	13	23	23	19	26	29	18	29
Red Bank	4	2	4	3	4	4	8	7	9	11	8	11
Morris County	30	26	44	35	36	38	47	42	36	83	55	77
Dover	4	4	6	7	9	4	13	6	10	10	8	3
Morristown	8	12	8	13	10	10	13	14	19	9	13	8
Ocean County	11	12	14	13	16	16	23	12	33	24	29	32
Passaic County	7	6	11	9	17	14	24	20	13	23	20	26
Passaic City	11	15	12	21	20	31	35	45	41	33	30	44
Paterson	44	60	75	70	84	125	168	153	135	135	154	130
Salem County	14	11	16	14	9	13	16	15	17	20	12	14
Salem City		4	5	7	9	5	7	7	3	7	8	11
Somerset County	17	22	17	17	19	26	21	17	25	32	24	27
North Plainfield	3		4	2	4	3	12	2	8	14	11	6
Somerville											6	7
Sussex County	6	8	13	9	12	14	16	20	13	15	18	12
Union County	10	9	15	11	17	17	16	17	16	20	18	19
Elizabeth	48	28	45	50	51	73	67	59	65	50	57	61
Plainfield	14	15	9	15	13	22	29	20	21	28	22	26
Rahway	9	14	12	9	6	7	12	9	12	11	11	11
Summit	1	4	7	5		2	3	5	4	10	3	9
Westfield							4	4	4	5	4	4
Warren County	14	16	17	24	21	19	37	17	29	28	29	24
Phillipsburg	5	4	4	8	5	14	13	9	14	9	11	13
Total	1,246	1,371	1,686	1,722	1,840	2,238	2,518	2,290	2,486	2,679	2,772	2,819

Contagious Diseases of Animals.

The report which follows is for the year ending October 31, 1913. Although no extensive epidemics among animals have occurred, the variety of diseases reported has been greater than in any previous year, including for the first time cases of Texas fever and also the mysterious deaths of a number of young cattle pastured in fields belonging to one of the State institutions, which resulted in the discovery in the State Laboratory that the deaths were due to poisoning by the eating of one of the insecticides used for the spraying of trees.

As the space for this report is limited, no tables showing names of owners and localities are given, and only a brief statement is made as to each of the diseases which came under the supervision of the Board.

TUBERCULOSIS.

The State Tuberculosis Commission is charged by law with the duty of taking measures to prevent the spread of this disease, and where such cases are reported to the State Board of Health the Commission is required to investigate and take such action as is necessary. Eleven cases were referred to the Commission and prompt action resulted in each instance. Although the Tuberculosis Commission has ample power conferred upon it by law to destroy animals affected with tuberculosis, no provision is made for the disinfection of stables infected by such animals.

Co-operating with the Commission, an arrangement was made during the past summer for the supervision of the disinfection of infected stables by the Division of Creameries and Dairies of the State Board of Health. The Tuberculosis Commission notifies the State Board of Health whenever stables are ready for disinfection, and a representative of the Board supervises the work.

The Board has always held to the view that it would be a wise plan to place all contagious diseases of animals under one Bureau or Commission, rather than divide the responsibility of the control of different diseases under separate Commissions. The Tubercolosis Commission is of the opinion that the field which the law creating the Commission covers is large enough to demand a separate Commission and its importance such that it should be dealt with as a distinct problem.

However, the experience of a few years in the control of disease under the present arrangement will determine definitely whether the present plan is one conducive to the greatest economy and efficiency.

POISONING OF ANIMALS BY LEAD AND ARSENIC.

Although this subject does not come directly under the heading of Contagious Diseases of Animals, an instance of accidental poisoning of animals occurred in this State during the past year which may well serve as a warning to owners of dairy cattle against the grazing of cattle in orchards where the trees have been sprayed with fungicide, or the throwing into fields in which cattle are pastured of the empty cans which may have contained poisonous materials.

On May 20th the Superintendent of the New Jersey State Home for Boys in Jamesburg went to a pasture in which some yearling calves were grazing, the Superintendent having received word that a number of them were showing signs of sickness and one had died. On arrival at the pasture it was found that three animals had died. Following this other animals sickened and in all sixteen yearling cattle died.

On the 21st day of May specimens of stomach and other parts of an animal which had died were forwarded to the State Chemical Laboratory for examination. The chemical analysis disclosed the presence of lead and arsenic. It would appear, therefore, that the death of the animal was caused by lead and arsenic poisoning, and it may be presumed that the other animals had partaken of the same poisonous material. Lead and arsenic are used to some extent as fungicides and undoubtedly the animals in some way had access either to the trees upon which the fungicide had been used, or to partly empty cans or containers in which the fungicide had been placed. Two cases of forage poisoning, resulting in the death of the animals, were reported. These cases occurred near Dover, Morris County.

TEXAS FEVER.

It is seldom that we are called upon to record any cases of Texas Fever occurring in cattle in the Northern States, as it is well known the disease is as a rule stationary in the southern part of the United States. The carrier of the disease germ is a cattle tick. These ticks fasten themselves upon the soft part of the skin of cattle and burrow their heads into it. The ticks lay eggs which hatch under ordinary warm conditions in about two or three weeks. These young ticks being located upon the grass in the fields are taken up by the cattle in grazing, and crawl up the limbs until they reach the soft skin inside of the thighs and on other parts of the body where they burrow their heads into the skin and grow rapidly. Within two or three weeks the animal becomes sick. After the ticks reach full size they lay eggs then loosen their hold and fall to the ground. The reason why the disease does not develop in the northern states is due to the fact that the ticks have very slight resistance to cold weather, and also that the tick-bearing cattle cannot affect others late in the Fall or in the Winter. This description is given as it may be of interest to owners and purchasers of cattle coming from the South.

In the latter part of May, Whitfield Gray, D. V. S., of Newton, reported that he had been called to examine some cattle which were shipped to a farm in Warren County, New Jersey, from the cattle fever district of North Carolina. Upon examination he discovered that the cattle were infected with the cattle ticks which produce Texas Fever. Proper action was immediately taken to prevent the spread of the disease. The Bureau of Animal Industry was at once notified of the facts in the case and was requested to investigate the locality from which the animals were shipped into New Jersey as the permission for shipment had been granted by the local authorites upon the basis that the locality was free from Texas Fever. The cattle upon their arrival were not released from the car and each animal was thoroughly treated for the eradication of the parasite. All the materials in the car and movable parts, such as hay, blankets, etc., were destroyed by burning. The prompt action which was instituted in this case resulted in preventing a spread of the disease.

On July 10th we were informed by the National Bureau of Animal Industry that cattle had been forwarded from Kissimmee, Florida, to Fanwood, New Jersey, for immediate slaughter. As Fanwood was not one of the stations which is recognized as a place for the slaughter of cattle quarantined on account of Texas Fever, the Bureau informed us at once so that we might trace the cattle and see that they were slaughtered. An investigation was started by this Board and it was learned that the cattle were unloaded at Fanwood on July 10th. They were traced to North Plainfield Township, Somerset County, and as soon as located they were slaughtered under the supervision of a representative of the State Board of Health, and the premises upon which the cattle were located were thoroughly disinfected.

An investigation of this case led to a more thorough understanding between the State and Federal authorities in regard to the handling of such cases in the future, and whenever animals are shipped from districts in the South infected with Texas Fever we will receive a notification so that the animals will be immediately slaughtered.

In September of the present year report was received that certain animals which had been shipped from farms in the South had been taken from the trains on the Lehigh Valley Railroad at Metuchen and placed in fields adjacent to the railroad tracks. A representative of this Department immediately visited the premises and afterwards supervised the thorough disinfection of the premises.

We believe that although from time to time cases of cattle infected with Texas Fever may be imported into our State, with the present knowledge of the methods of handling the disease and the disinfection of the premises, we will be able to prevent any extension of the disease beyond the infected animals.

BLACK LEG.

In June, 1913, Dr. Gray, of Newton, examined some young stock on a farm in Sussex County and reported the existence of Black Leg. Two animals had succumbed to the disease. The remaining animals of the herd were vaccinated with Black Leg Vaccine and no further fatalities occurred.

This disease appears from time to time in Sussex County and the prompt vaccination of exposed animals has resulted in direct saving to farmers. We constantly urge upon cattle owners the necessity of promptly reporting suspicious cases so that an early diagnosis can be made and the preventative remedy applied.

ANTHRAX.

In November, 1912, report was received at the office stating that there had been some suspicious deaths of cows upon the premises of Mr. Lemmerman, of Irvington, Essex County. Wm. H. Harrison, D. V. S., of Bloomfield, was requested to at once, make examination of the animals and make a report as to the nature of the disease. Post mortem examination was made of one of the animals that died and a diagnosis of anthrax made at that time was later on verified by a bacteriological examination of parts of the animal sent to the Laboratory.

In making this investigation Dr. Harrison ascertained that there were ninety-five cattle upon the premises. The farm upon which the cattle were kept comprised about thirty-five acres most of which was low ground and on many places the surface water was standing. Two cows had died with similar symptoms previous to the matter being brought to the attention of the State Board of Health. A small stream flows through the premises which empties into the west branch of the Elizabeth River. A pasture adjoins the Lemmerman pasture on the north and during the wet weather a drainage was received from this neighboring pasture. On the west of the Lemmerman place is the Hutmacher farm and the fence between this pasture and Lemmerman's farm was broken down. The west branch of the Elizabeth River flows through Hutmacher's place.

There are forty-three cattle kept in a dairy barn. It was ascertained that five animals had died during the summer and that Dr. Budd, of Orange, in making a post mortem examination of these animals contracted anthrax and lost his life as a result of the infection.

A tannery on the Hutmacher property is located within one hundred feet of his dairy barn. Hides used for tanning purposes are secured from South America and Mexico in car-loads. The drainage from this tannery reaches the west branch of the Elizabeth River.

Adjoining Hutmacher's farm is what is known as the "Long Farm." The history shows that he lost two cattle under apparently similar conditions. He said that his cattle broke through the fence and visited the Hutmacher property. Mr. Bernett also gave information to the effect that during the early Fall he lost an animal under similar conditions to those shown by cattle which had recently died on other farms. No connection, however, was traced between his premises and the infected premises.

As a result of this investigation the pasture fields belonging to Nolde, Lemmerman, Hutmacher and Long were ordered closed. All the stables in which these cases had occurred were thoroughly disinfected and in the Lemmerman case the location of the barnyard was changed from the low ground to higher ground on the west side of his farm. An order was also issued that no cattle from these premises should be sold for slaughter. For the protection of the meadow it was directed that a cesspool should be constructed for the purpose of keeping the tannery waste from getting on to the meadow or into the stream and thus infecting other meadows.

HOG CHOLERA.

During the year a large number of losses of animals has resulted from this disease. The localities infected were Sussex, Morris, Mercer, Burlington, Somerset and Ocean Counties.

It is our custom when called upon to deal with this disease to have a veterinarian representing the Board visit the infected farms and advise the owners as to preventive inoculation and also to direct the separation of well animals from those that are sick, and the disinfection of the premises.

The subject of the prevention of this disease is one which should be taken up by the farmers in the various localities for the purpose of educating owners of hogs to the necessity of the use of inoculation for preventing this disease, and also to teach them to make more careful inquiry in reference to the places from which hogs are purchased.

GLANDERS.

This disease continues to cause loss of horses throughout the State. Essex, Hudson and Bergen Counties are those in which most cases were reported. The proximity of these counties to the city of New York and the bringing of infected animals from other states account for the increased number of cases. Until there is some form of rigid and systematic examination of all animals in the various counties of the state, it will be impossible to rid ourselves of this disease. So long as unscrupulous dealers will sell diseased animals and farmers continue to purchase from them, the loss will continue.

The total number of cases reported during the year was two hundred and thirty. Of this number ten occurred in Bergen County, one hundred and ninety in Essex County and sixteen in Hudson County. In no other county were there over three cases.

The practice of the Board when a case of glanders is reported is to send a veterinarian to make an examination, and if necessary to quarantine the premises upon which the animal is located, and to supervise the disinfection of the premises.

In most cases a quarantine is unnecessary as the owner will be very glad to get rid of animals which may infect others on the premises. Eight of the two hundred and thirty cases reported died and two hundred and ten animals were destroyed. Two hundred and two premises were disinfected under the supervision of the State Board of Health.

The following table shows in detail the counties in which cases occurred:

OCCURRENCE OF GLANDERS IN THE STATE OF NEW JERSEY FOR THE YEAR ENDING OCTOBER 31, 1913.

COUNTIES	NUMBER OF CASES
Bergen	10
Camden	1
Cumberland	1
Essex	190
Hudson	16
Middlesex	2
Mercer	2
Monmouth	2
Morris	1
Passaic	3
Somerset	1
Union	1
Total	230

Number of animals destroyed	210
" " " died	8
" " premises disinfected	202

Report of the Division of Medical and Sanitary Inspection.

A. CLARK HUNT, M. D., CHIEF.

To the Board of Health of the State of New Jersey.

GENTLEMEN:—I have the honor to submit the following report of the Division of Medical and Sanitary Inspection for the year ending October 31, 1913.

The routine work of this Division varies but slightly from year to year. It consists mainly in advising local boards of health as to the methods of limiting the spread of epidemics—the collection and tabulation of statistical data relating to communicable and industrial diseases, the inspection of state institutions, the study of epidemics and the maintenance of a traveling tuberculosis exhibit.

Each year, however, new and complex problems are presented which are of special interest and require careful study. In the report of last year attention was directed to the new law relating to the reporting of communicable diseases occurring in various portions of the State. Believing as we do that a knowledge of the occurrence of cases is the only foundation upon which effective preventive health work is based, every effort has been made to perfect the statistics of communicable diseases. The improvement in reporting of cases is gratifying as the number of reported cases has increased in two years from 10,563 to 25,268, while the mortality rate for this period has diminished.

In only 701 cases of deaths from communicable diseases have the attending physicians failed to comply with the law by reporting to the local board of health. Nearly all of the unreported cases were of tuberculosis and the failure to report was due to the belief on the part of the attending physician that some other physician had previously attended the case and reported it to the local board of health.

With the knowledge which we now have of localities in which epidemics frequently occur, we are able to study the conditions and discover the defects of local boards of health in dealing with individual cases.

The gathering of statistical data relating to this subject is of little value unless carefully tabulated and studied. We therefore present in full in this report tables made from reports of each disease in which comparisons are made with the statistics of other years, and also complete State and county tables showing all cases which were reported during the year.

The tuberculosis exhibit has been open for one hundred and forty-seven days. Twenty municipalities have been visited and thirty-one shows given. During the thirty-four weeks the exhibit was on the road 247,237 persons have attended. When we add to this number the persons in attendance upon the park shows which are given in the summer, the total attendance reaches 330,927. Adding to these figures the attendance for little over a year previous to 1913 we have a final total attendance of 437,894 persons.

The number of pieces of literature distributed during the exhibits given from Oct. 31, 1912, to Oct. 31, 1913, amounts to 614,730, and for the year and eight months in which the exhibit has been maintained a total of over 1,000,000 pieces of literature.

As the total annual appropriation for exhibition work is only $10,000, calculation shows that the average cost of the exhibit for each person in attendance is only four cents, and if we omit the persons in attendance at the park shows the per capita cost is only three cents.

The evident success and usefulness of the exhibit from an educational standpoint is an indication of the necessity of extending this method of publicity into other departments of health work so that the public may be enlightened not only as to the methods of preventing tuberculosis, but as to school hygiene, home sanitation, impure foods and the innumerable avoidable dangers to individual health.

During the year 7 cases of diphtheria, 36 cases of scarlet fever, 5 cases of typhoid fever, 5 cases of tuberculosis and one of dysentery were reported as existing in persons residing on dairy premises. Each one of these premises was visited by a representative of this Division and explicit directions given as to the handling of milk, the isolation of affected persons, and when necessary the sale of milk was prohibited or discontinued. A reasonable administration of the law which gives the State Board of Health the power to prohibit the sale of milk which is exposed to the contamination of persons sick with a communicable disease has lead to the view on the part of dairymen that while the State Board of Health is endeavoring to protect the communities from the spread of disease, there is no intention on the part of the Board to unnecessarily interfere with the business interests of the dairy owner. The board has therefore, had for the most part the confidence and co-operation of milk producers, and while cases of communicable diseases have occurred in forty-three premises, in only six instances has the sale of milk been prohibited. Proper isolation of cases with special arrangement for washing utensils and collecting milk have been a sufficient protection on the remaining dairies which were inspected.

The epidemiological investigations of the year have been under the supervision of Mr. D. C. Bowen, Chief Sanitary Inspector of the Division, and the reports of some of the more interesting inquiries are given in the pages of the divisional report which follow.

The continued occurrence of mild cases of small-pox in several portions of the State necessitated a careful study of the causes leading to the extension of this disease. The neglect of physicians to recognize early cases and the failure of boards of education and parents to require vaccination was recognized and a campaign of education was organized which finally resulted in the temporary elimination of the disease.

Under the heading of typhoid fever will be found a report of the investigation of an epidemic in Roebling in which the infection was traced to well water and the bacillus of the disease isolated from a sample of the water. The report of cases of typhoid fever due to the existence of a "carrier" case on dairy premises near Keyport, N. J., in which the proof of direct infection is unanswerable, again directs attention to the menace such cases are to a community and of the necessity of the examination of the blood of persons engaged in the collection or distribution of milk who give a history of previous infection or may from the existence of actual cases on the premises be regarded as suspects.

The report of an epidemic of acute intestinal disturbance which affected several hundred persons in Union County while not conclusive in character is of interest as it deals with an uncommon form of attack which may have been caused by the milk supplied to those afflicted with the peculiar symptoms described in the report.

The limited space in the annual report which is devoted to each division of the Board precludes the presentation of many reports of investigations which are worthy of study and the topics presented are therefore merely an indication of the comprehensive character of the work of the Division.

PREVALENCE OF REPORTABLE DISEASES.

State or local health departments can do no effective work in the prevention of diseases without a knowledge of when, where and under what conditions they occur. Therefore, the first requirement for the application of preventive measures is that full and complete reports of cases be secured; the second, that a careful study be made of the conditions under which disease occurs, and the third, the wise application of known preventive measures. Without reports of cases preventive measures cannot be intelligently applied and the reports of cases are of no value unless definite action is the result of the information obtained.

Throughout the state as a whole improvement has been made from year to year in morbidity reports. This has been particularly marked since 1911 when the present follow-up system was established in the Division of Medical and Sanitary Inspection of the State Board of Health. During the past three years, 1911 to 1913 inclusive, the number of communicable diseases reported each year has increased from 10,563 cases in 1911 to 25,268 in 1913, equal to an increase of 139.2 per cent. in the number of reported cases while the mortality rate from these diseases as a whole has steadily diminished.

During the year ending October 31, 1912, reports were received of 19,078 cases of preventable diseases that caused, during the same period of time, 4,926 deaths. During the year 1913 reports of 25,267 cases due to the same diseases were made and 5,139 deaths occurred, thus showing an increase of 6,189 reported cases and 213 deaths. The increase in the number of cases reported was 32.4 per cent., while the increase in the number of deaths was but 4.3 per cent. These figures show an increase in the number of cases reported during the year 1913 over that of 1912 that is not accompanied by a corresponding increase in the number of deaths due to the same causes, which indicates a marked improvement in complying with the law requiring reports of communicable diseases. The following tables of morbidity and mortality reports from each municipality in the State may be studied, and from them it may be seen in what locality of the State any one of the reportable diseases is relatively high and in which special efforts should be made to bring about a reduction in the morbidity and mortality rate.

TYPHOID FEVER.

Typhoid fever was less prevalent and caused fewer deaths throughout the State as a whole during the year 1913 than in 1912. There were 2,024 cases reported in 1912 against 1,825 cases in 1913, a decrease of 9.8%. There were 306 deaths in 1912 against 276 in 1913, a like decrease of 9.8% in the total number of deaths. Based on the reported cases, and an estimated population of 2,765,514, there were 6.5 cases per each 10,000 population, the deaths per 10,000 population being 0.9 case, the lowest mortality rate from typhoid fever ever recorded in this State. The fatality, based on reported cases and deaths, was 15.1%, or one death to each 6.6 cases reported. This number is doubtless too high, as the fatality from this disease should not exceed 10% and is probably even less. This means that the reports of cases of typhoid fever are incomplete, which may be partially accounted for by difficulties in making clinical diagnoses that might be somewhat overcome through extended use by physicians of the laboratory maintained by the State for the examination of specimens for diagnostic purposes.

REPORTED CASES, DEATHS AND THE DEATH RATE PER 10,000 POPULATION, FROM TYPHOID FEVER TOGETHER WITH A CALCULATION OF THE PROBABLE NUMBER OF CASES THAT OCCURRED DURING EACH YEAR FIGURED ON A MORTALITY RATE OF 8%, ARE SHOWN FOR A PERIOD OF FIVE YEARS IN TABLE I.

TABLE I.

Year	*Population*	*Reported Cases*	*Deaths*	*Death Rate per 10,000 population*	*Number of cases based on morbidity rate of 8%*
1909............	2,352,522	1,268	301	1.27	3,762
1910............	2,537,167	1,134	392	1.55	4,900
1911............	2,611,799	1,617	337	1.29	4,212
1912............	2,686,389	2,024	306	1.14	3,825
1913............	2,765,514	1,825	276	0.9	3,450

DIPHTHERIA.

Diphtheria was more prevalent during the year ending October 31, 1913, than for the preceding year, there being 4,829 cases reported in 1912 against 6,374 in 1913, an increase of 1,545 reported cases, or 31.9%. There was likewise an increase from 458 deaths in 1912 to 553 in 1913, equal to 20.7% in the death rate from this disease.

THE REPORTED CASES, RECORDED DEATHS AND DEATH RATE FROM DIPHTHERIA PER 10,000 POPULATION FOR THE PAST FIVE YEARS.

TABLE II.

Year	*Population*	*Reported Cases*	*Deaths*	*Death Rate per 10,000 population*
1909....................	2,352,522	3,703	610	2.59
1910....................	2,537,167	5,072	728	2.86
1911....................	2,611,799	5,884	568	2.13
1912....................	2,686,389	4,829	458	1.70
1913....................	2,765,514	6,374	553	1.99

SCARLET FEVER.

The 5,255 cases of scarlet fever reported during the year 1913 show an increase of 1,268 cases equal to 31.8% over the preceding year. The increase of deaths from 129 in 1912 to 227 in 1913, (98 deaths), is equivalent to 75.9% increase and gives a death rate of 0.82 per 10,000.

TABLE SHOWING THE REPORTED CASES OF SCARLET FEVER, DEATHS AND DEATH RATE FOR THE PAST FIVE YEARS.

TABLE III.

Year	*Population*	*Reported Cases*	*Deaths*	*Death Rate per 10,000 population*
1909....................	2,352,522	4,821	338	1,43
1910....................	2,537,167	6,955	229	0.90
1911....................	2,611,799	5,335	214	0.84
1912....................	2,686,389	3,987	129	0.48
1913....................	2,765,514	5,255	227	0.82

TUBERCULOSIS.

The number of reported cases of tuberculosis—including all forms of the disease—for the year ending October 31, 1913, was 2,317 cases in excess of the number reported during the preceding year or 41.4%. In 1912, 5.595 cases were reported while in

1913 the figures reached 7,912 cases. The recorded deaths during the same years numbered 4,178 in 1912 against 4,037 in 1913, a decrease of 141 deaths, the death rate per 10,000 population falling from 15.55 in 1912 to 14.59 in 1913.

The educational work that is being done by State and local boards of health, supplemented by the activities of civic bodies and interested individuals, in their fight against the ravages of this disease is aiding in securing a marked improvement in the registration of cases, and should result in an improvement in the conditions under which infected individuals live and work and eventually be followed by a greater decrease in the death rate from tuberculosis.

TABLE SHOWING THE MORBIDITY AND MORTALITY FROM TUBERCULOSIS FOR THE PAST FIVE YEARS.

TABLE IV.

Year	*Population*	*Reported Cases*	*Deaths*	*Death. Rate per 10,000 population*
1909....................	2,352,522	825	4,228	17.97
1910....................	2,537,167	1,221	4,540	17.89
1911....................	2,611,799	2,595	4,528	17,33
1912....................	2,686,389	5,595	4,178	15.55
1913....................	2,765,514	7,912	4,037	14.59

Note: In the report of 1912, page 99, Table V and page 100, Table VIII, the death rate per 10,000 population from tuberculosis for the years 1911 and 1912 are by error given as 11.13 and 11.10. The figures for these years should have been 17.33 and 15.55.

The figures given in the above mentioned tables for the years 1909, 1910 and 1911 are for deaths from tuberculosis of the lungs and do not include deaths from other forms of tuberculosis. The figures for 1912 and 1913 include deaths from all forms of tuberculosis excepting Potts Disease and White Swelling.

The statistics for 1909, 1910 and 1911 cover the periods from January 1 to December 31, while in 1912 and 1913 the statistical years end October 31.

SMALL-POX.

There were 86 cases with no deaths from small-pox during the year 1913 as against 12 cases and one death for the preceding year. The safe and sure method by which immunity may be secured against small-pox, and the exceeding mild type of the disease that has recently prevailed in this State, should lead public health authorities to emphasize vaccination above the more costly methods of quarantine and disinfection so rigidly enforced in cases of small-pox in communities where little or no attention whatever is given to the restriction of the much more prevalent and vastly more fatal preventable diseases that prevail in their sanitary districts.

CHICKEN-POX.

The increase in the number of cases of chicken-pox reported from 2,014 cases in 1912 to 2,982 in 1913 is largely due to the beginning of an awakening on the part of physicians that chicken-pox has been placed on the list of reportable diseases. The disease caused two deaths in 1912 and four in 1913.

MALARIAL FEVER.

The 546 cases of malaria reported during 1913 against 483 cases in 1912 is an increase during the past year of 63 or 130% in the number of reported cases. The increased number of reported cases was accompanied by a decrease in the number of deaths certified as being due to malaria from 22 deaths in 1912 to 12 deaths in 1913. Sussex County continues to furnish more than 60% of the reported cases of malaria, but it is quite apparent, by comparing the reported cases with the deaths throughout the State from malarial disease, that reports of malaria from Sussex County are more complete than in other counties, for, while Sussex leads in the number of cases reported not one of the 12 deaths from malaria in 1913 occurred therein.

ANTERIOR POLIOMYELITIS.

The 87 cases of anterior poliomyelitis reported during the year 1913 is 28 cases, (47.4%), in excess of the number reported in 1912. This disease caused 21 deaths during the year 1912 and 20 in 1913. The increase in the number of cases reported has resulted from a gradual spread of the fact that poliomyelitis has been placed in the list of reportable diseases.

REPORTED CASES OF ANTERIOR POLIOMYELITIS FOR THE PAST THREE YEARS, AND RECORDED DEATHS FOR 1912 AND 1913, ARE SHOWN IN TABLE V.

TABLE V.

Years	*Reported Cases*	*Deaths*
1911	47	..
1912	59	21
1913	87	20

FAILURE TO COMPLY WITH THE LAW IN REPORTING COMMUNICABLE DISEASES.

The number of physicians who have failed to report cases of communicable diseases that resulted in deaths and for which they signed a death certificate during the year 1913 is greater than the number who failed during the preceding year. In 1912, 441 physicians collectively failed to report a total of 633 cases, while in 1913, 495 physicians collectively failed to report a total of 701 cases, an increase of 10.7% in the number of non-reported fatal cases.

Tuberculosis is the one disease from which the most deaths occur from cases that have never been reported. There were 607 of such fatal cases of tuberculosis during the past year against 94 cases of all other reportable diseases, which makes the deaths from unreported cases of this disease equal to 14.7% of the total deaths resulting therefrom. While it is quite evident considering the difficulties which exist in making a diagnosis of some cases, that a full and complete compliance with the letter of the law cannot be expected in cases of tuberculosis, it is also evident that reasonable efforts on the part of physicians to report all cases would furnish more reliable morbidity records.

Malarial diseases are also poorly reported as shown by the per cent. of the deaths which occur from unreported cases.

TABLE SHOWING THE NUMBER OF FATAL CASES OF COMMUNICABLE DISEASES THAT WERE NOT REPORTED, AND THE NUMBER OF PHYSICIANS WHO FAILED TO MAKE REPORTS OF SUCH CASES FOR THE TWO YEARS ENDING OCTOBER 31, 1913.

TABLE VI.

Name of Disease.	*Number of deaths resulting from cases of communicable diseases that were not reported by physicians.*		*Number of physicians who failed to report cases of communicable diseases that resulted in death.*	
	1912	1913	1912	1913
Tuberculosis	539	607	382	441
Diphtheria	27	30	18	28
Typhoid Fever	46	30	35	28
Scarlet Fever	5	9	4	9
Anterior Poliomyelitis	12	11	10	11
Malaria	3	11	3	11
Rabies	1	3	1	3
Totals	633	701	453	531

TABLE SHOWING THE PER CENT. OF THE TOTAL NUMBER OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES THAT WERE NOT REPORTED BY THE ATTENDING PHYSICIAN.

TABLE VII.

Year	*Tuberculosis*	*Diphtheria*	*Typhoid Fever*	*Scarlet Fever*	*Anterior Poliomyelitis*	*Malaria*	*Rabies*
1912	12.9	5.8	15.0	3.8	57.1	13.6	25.0
1913	14.7	5.4	10.8	3.9	55.0	91.6	50.0

TABLE VIII.

REPORTED CASES AND DEATHS FROM

FOR FIVE YEARS ENDING

YEARS.	Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		c	d	c	d	c	d	c	d	c	d
1909......	2,352,522	1,268	301	3,703	610	4,821	338	825	4,228	601	......
1910......	2,537,167	1,134	392	5,072	728	6,955	229	1,221	4,540	671	......
1911......	2,611,799	1,617	337	5,884	568	5,335	214	2,595	4,528	889	......
1912......	2,686,389	2,024	306	4,829	458	3,987	129	5,595	4,178	2,014	2
1913......	2,765,514	1,825	276	6,374	553	5,255	227	7,912	4,037	2,982	4

TABLE IX.

MORBIDITY AND

BY COUNTIES, FOR THE YEAR

COUNTIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Atlantic............	78,914	76	9	123	10	91	2	125	85	25	.....
Bergen.............	160,001	130	14	283	19	128	6	270	164	156	.....
Burlington..........	69,477	114	16	103	6	123	4	110	86	57	.....
Camden............	154,084	184	32	477	56	398	16	395	240	143	1
Cape May...........	21,087	26	3	46	4	11	.....	30	20	15	1
Cumberland.........	56,978	58	7	104	4	37	1	70	74	36	.....
Essex.............	573,578	298	43	2,000	123	1,367	39	2,693	963	1,486	1
Gloucester..........	39,001	34	5	39	4	129	3	54	38	57	.....
Hudson............	589,643	214	50	1,551	161	1,334	71	2,108	1,009	286	1
Hunterdon.........	33,764	31	4	37	3	106	4	41	29	15	.....
Mercer............	134,739	108	20	241	32	416	27	435	271	44	.....
Middlesex..........	121,887	153	15	380	37	253	11	210	154	67	.....
Monmouth..........	97,944	120	17	79	13	76	5	127	109	70	.....
Morris.............	78,091	24	3	66	6	106	2	129	95	33	.....
Ocean..............	21,580	17	6	16	1	58	2	21	22	17	.....
Passaic............	239,761	86	12	360	36	235	10	510	296	117	.....
Salem.............	27,426	22	2	48	3	29	.....	29	42	10	.....
Somerset...........	40,351	10	.....	122	15	36	1	33	37	1	.....
Sussex............	28,855	15	.....	14	.....	30	1	21	21	8	.....
Union.............	153,495	88	15	249	14	234	21	465	240	323	.....
Warren............	44,858	22	3	36	6	58	1	36	42	16	.....
	2,765,514	1,825	276	6,374	553	5,255	227	7,912	4,037	2,982	4

CERTAIN COMMUNICABLE DISEASES

OCTOBER 31, 1912.

Small pox.		Malaria		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
c	d	c	d	c	d	c	d	c	d	c	d	c	d	c	d
88	2		25								3				
20			25								8				
47	1	44	25	47				1		1	13				
12	1	483	22	59	21	55		7		6	4	4	1	3	
86		546	12	87	20	116		25		6	6	3		1	

MORTALITY TABLE.

ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1			1					1							
1		28		10	1	2		21							
		4	1		2			1							
2		6		2	2			1				3			
				1	1										
		57	2	29	5	107		35		4	2			1	
1															
		3	3	11	1	4		4		1	1				
					1										
1		84		7	1	1		1							
6		3	1	1	2			1			1				
62		3	2	3				1							
2		2	1		1										
1		12		5		2		2		1	1				
		2						1							
		1		1	1						1				
		331		2	1			2							
8		10		14	1			4							
1			1	1											
86		546	12	87	20	116		75		6	6	3		1	

TABLE X. MORBIDITY AND

MUNICIPALITIES IN ATLANTIC COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chickenpox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Absecon City	880	....	....	1	....	2	....	....	1	....	....
Atlantic City	51,284	41	5	82	7	79	1	62	56	3	....
Brigantine City, Bor.	50	....	....	....	....	....	....	....	....	....	....
Buena Vista, Twp.	2,723	5	....	9	....	2	....	3	....	....	....
Egg Harbor City	2,122	....	....	2	....	6	....	6	5	....	....
Egg Harbor Twp.	895	1	....	1	....	....	....	9	4	6	....
Folsom, Boro.	232	....	....	....	....	....	....	1	1	....	....
Galloway, Twp.	2,036	....	....	....	....	....	....	2	....	....	....
Hamilton, Twp.	2,421	2	....	....	....	....	....	....	1	....	....
Hommonton, Town	5,540	20	3	2	....	....	....	21	2	12	....
Linwood, Boro.	661	....	....	....	....	....	....	....	1	....	....
Longport, Boro.	109	....	....	....	....	....	....	....	....	....	....
Margate City	137	....	....	....	....	....	....	....	....	....	....
Mullica, Twp.	821	....	....	....	....	....	....	1	....	....	....
Northfield, City	973	....	....	....	1	....	....	3	2	....	....
Pleasantville, Boro.	5,330	7	1	23	2	....	....	16	10	4	....
Port Republic City	377	....	....	....	....	....	....	....	....	....	....
Somers Point City	708	....	....	....	....	....	....	....	....	....	....
Ventnor City	716	....	....	3	....	2	1	1	2	....	....
Weymouth, Twp.	899	....	....	....	....	....	....	....	....	....	....
	78,914	76	9	123	10	91	2	125	85	25	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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1	....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....

TABLE XI. **MORBIDITY AND**

MUNICIPALITIES IN BERGEN COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diptheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Allendale Borough	1,042			5		1					
Alpine Borough	334			1				6	2	2	
Bergenfield Borough	2,529		1					3	3	5	
Bogota Borough	1,487							3			
Carlstadt Borough	4,231			2		1		6	4		
Closter Borough	1,610			1				1	2		
Cliffside Park Borough	4,154	1		31	1			7	6	1	
Cresskill Borough	577			1		1		1			
Delford Borough	1,103			1				1	3	1	
Demarest Borough	608							1			
Dumont Borough	2,305	1		6	1	3	1	5	3		
East Rutherford Boro.	4,941	1		7		7		3	5		
Edgewater Borough	3,413			7	1	6		7	2		
Emerson Borough	767			1							
Englewood City	11,125	10	3	29	5	6		21	9	79	
Englewood Cliffs Boro	496							1			
Fairview Borough	2,890			6		1		8			
Fort Lee Borough	5,095	4	2	6		4		10	14	2	
Franklin Township	2,187			2		2		2	2		
Garfield Borough	13,286	5		12	2	12		12	9	1	
Glen Rock Borough	1,221			5				3	1		
Hackensack Town	15,821	17	2	31	2	17		41	24	24	
Harrington Park Boro.	433	1		3		3		1			
Harrington Township	628	1						2	1		
Hasbrouck Hghts Boro.	2,458			4				5	2		
Haworth Borough	701			1			1	1	1		
Hillsdale Township	1,072			1		1		3	2		
Hohokus Borough	488			1		3		2	3		
Hohokus Township	1,881			4				4	1		
Leonia Borough	1,753							3	5		
Little Ferry Borough	3,000			11	3	5		8	5		
Lodi Borough	4,945	3		8	1	7		16	5	5	
Lodi Township	693	1		4					1		
Maywood Borough	1,010			7	1	1		4	3		
Midland Township	1,489	1		2		1		4	2	1	
Midland Park Borough	2,231							2	1	8	
Montvale Borough	534	1		1							
Moonachie Borough	638										
North Arlington Boro.	454										
Northvale Borough								1	2		
Norwood Borough	643	1									
Oakland Borough	557	1	1					2	1		
Old Tappan Borough	320										
Orvil Township	970	4							1		
Palisades Township	1,200			3		1		1			
Palisades Park Borough	1,711			6				4			
Park Ridge Borough	1,528	1		1		1		3	2		
Ramsey Borough	1,667			3		1	1	2	1		
Ridgefield Borough	1,099			1				1	2		
Ridgefield Park Village	5,509	3	1	12		5		12	9		
Ridgewood Village	6,278			8		2		18	5	23	
Riverside Borough	776			1		1		1	1		
Rivervale Township	450								1	1	
Rutherford Borough	8,141	16		8		12	1	6	7		
Saddle River Borough	488										
Saddle River Township	3,646	8		2		1			2	1	
Teaneck Township	2,598	1	1	8		1		1	1	2	
Tenafly Borough	3,124	1		3		8		4	4		
Union Township	5,208	45	3	15	2	3		8	2		
Upper Saddle River Bo.	242										
Wallington Borough	4,032			3		1		2			
Washington Township	100										
Westwood Borough	2,384	1		5		2		5			
Woodcliffe Borough	464					1		1	1		
Wood Ridge Borough	1,236	1		3		6	2	1	1		
	160,001	130	14	283	19	128	6	270	164	156	

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XII. MORBIDITY AND

MUNICIPALITIES IN BURLINGTON COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Bass River Township	659	....	....	....	....	....	....	....	....	....	....
Beverly City	2,069	....	....	....	1	....	....	....	3	....	....
Beverly Township	2,431	2	....	1	....	5	....	....	3	....	....
Bordentown City	4,356	8	1	3	....	6	....	12	8	18	....
Bordentown Township	652	1	....	....	....	2	....	2	....	....	....
Burlington City	8,615	11	1	8	....	7	....	9	12	10	....
Burlington Township	1,345	3	....	1	....	1	....	1	1	1	....
Chester Township	5,201	6	....	12	....	11	....	12	4	14	....
Chesterfield Township	1,123	....	....	....	....	....	....	1	....	....	....
Cinnaminson Township	1,387	5	1	....	....	4	....	2	....	....	....
Delran Township	844	....	....	2	....	6	....	....	1	....	....
Easthampton Twp.	461	....	....	....	....	....	....	....	1	....	....
Evesham Township	1,439	1	1	....	....	9	....	2	3	3	....
Fieldsboro Borough	494	1	....	....	....	2	....	....	....	....	....
Florence Township	6,389	43	4	12	3	6	2	11	5	....	....
Lumberton Township	1,819	1	....	5	1	3	....	....	1	....	....
Mansfield Township	1,546	1	....	1	....	....	....	....	....	....	....
Medford Township	1,827	1	1	....	....	2	2	3	3	....	....
Mount Laurel Township	1,514	4	....	1	....	2	....	5	3	1	....
New Hanover Township	941	....	....	....	....	....	....	1	....	....	....
Northampton Township	5,738	13	3	33	1	11	....	17	11	....	....
North Hanover Twp.	665	....	....	....	....	....	....	....	....	....	....
Palmyra Township	2,896	4	1	5	....	8	....	6	8	1	....
Pemberton Borough	783	1	....	....	....	1	....	....	2	....	....
Pemberton Township	1,663	4	....	3	....	3	....	15	3	1	....
Riverside Township	4,437	1	2	3	....	25	....	4	8	....	....
Riverton Borough	1,927	2	....	4	....	1	....	3	2	6	....
Shamong Township	468	....	....	1	....	....	....	....	....	....	....
Southampton Township	1,729	....	....	1	....	3	....	3	3	....	....
Springfield Township	1,251	....	1	....	....	3	....	....	....	....	....
Tabernacle Township	502	....	....	4	....	....	....	....	1	....	....
Washington Township	614	....	....	....	....	1	....	1	....	....	....
Westhampton Township	576	....	....	....	....	....	....	....	....	1	....
Willingboro Township	504	1	....	....	....	1	....	....	....	1	....
Woodland Township	512	....	....	3	....	....	....	....	....	....	....
	69,477	114	16	103	6	123	4	110	86	57	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XIII. **MORBIDITY AND**

MUNICIPALITIES IN CAMDEN COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Audubon Borough	1,834	1	.....	4	.....	2	.....	3	2	.....	.....
Berlin Township	1,611	.....	.....	1	.....	2	.....	3	5	.....	.....
Camden City	101,243	71	21	378	47	283	14	294	156	119	1
Centre Township	3,529	5	1	8	1	4	.....	6	4	.....	.....
Chesilhurst Borough	239	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clementon Township	3,116	4	.....	14	2	6	.....	6	9	.....	.....
Collingswood Borough	6,149	10	.....	8	1	19	.....	13	8	.....	.....
Delaware Township	1,848	1	.....	3	.....	2	.....	1	.....	1	.....
Gloucester City	10,306	53	6	23	1	11	1	21	16	8	.....
Gloucester Township	2,428	1	1	1	.....	.....	.....	17	15	1	.....
Haddon Township	1,739	4	.....	3	.....	4	.....	2	2	1	.....
Haddonfield Borough	4,548	2	.....	7	.....	16	.....	11	8	7	.....
Haddon Heights Boro.	1,931	8	1	2	.....	2	.....	3	1	.....	.....
Merchantville Borough	2,214	1	.....	9	.....	4	.....	5	4	3	.....
Oaklyn Borough	772	7	1	.....	.....	.....	.....	.....	1	.....	.....
Pensauken Township	4,296	12	1	14	2	14	.....	5	5	4	.....
Voorhees Township	1,273	1	.....	2	1	2	.....	1	1	2	.....
Waterford Township	1,484	3	.....	.....	.....	3	.....	1	2	.....	.....
Winslow Township	2,957	.....	.....	.....	1	22	1	3	1	.....	.....
Woodlynne Borough	567	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
	154,084	184	32	477	56	398	16	395	240	143	1

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XIV. **MORBIDITY AND**

MUNICIPALITIES IN CAPE MAY COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chickenpox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Avalon Borough........	316	....	....	....	....	....	....	....	....	....	....
Cape May City.........	2,150	2	....	....	....	1	....	....	....	....	....
Cape May Point Boro...	162	....	....	....	....	....	....	....	1	....	....
Dennis Township........	1,736	1	1	....	....	....	....	4	2	2	....
Lower Township........	1,188	....	....	3	....	....	....	8	4	....	....
Middle Township.......	3,208	4	1	5	....	....	....	5	2	1	....
North Wildwood, Boro..	1,093	....	....	....	....	....	....	....	2	....	....
Ocean City Borough.....	2,019	8	....	12	1	....	....	....	....	....	....
Sea Isle City, Borough...	622	6	1	7	1	2	....	3	....	....	....
South Cape May Boro...	8	....	....	....	....	....	....	....	....	....	....
Upper Township........	1,563	....	....	....	....	....	....	1	2	....	....
West Cape May Boro....	806	1	....	6	1	....	....	1	1	....	....
Wildwood City.........	3,382	3	....	10	....	7	....	4	3	....	1
Wildwood Crest Boro....	103	....	....	....	....	1	....	....	1	1	....
Woodbine Borough......	2,728	1	....	3	1	....	....	4	2	11	....
	21,087	26	3	46	4	11	....	30	20	15	1

TABLE XV. **MORBIDITY AND**

MUNICIPALITIES IN CUMBERLAND COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chickenpox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Bridgeton City.........	14,560	9	2	24	....	9	1	23	17	22	....
Commercial Township...	2,681	3	....	1	....	4	....	1	2	....	....
Deerfield Township......	3,370	....	....	2	....	....	....	1	3	....	....
Downe Township........	1,432	1	....	2	....	2	....	3	1	....	....
Fairfield Township......	1,631	6	....	1	....	....	....	....	3	....	....
Greenwich Township....	1,159	....	....	....	....	....	....	3	1	....	....
Hopewell Township.....	1,805	....	....	....	....	....	....	2	2	....	....
Landis Township.......	7,085	5	....	3	1	6	....	3	8	....	....
Lawrence Township.....	1,756	1	....	3	....	2	....	4	4	....	....
Maurice River Tp.......	2,118	3	1	....	....	1	....	1	2	....	....
Millville City..........	12,791	18	2	38	2	11	....	20	18	11	....
Stow Creek Township...	895	2	1	....	....	....	....	1	1	....	....
Vineland Borough......	5,695	5	1	30	1	2	....	8	12	3	....
	56,978	53	7	104	4	37	1	70	74	36	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XVI. **MORBIDITY AND**

MUNICIPALITIES IN ESSEX COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Belleville Township	11,246	7	.....	44	9	54	1	29	20	3	.....
Bloomfield Town	17,111	2	1	60	1	38	.....	26	23	16	.....
Caldwell Borough	2,463	.....	.....	4	1	6	1	15	3	.....	.....
Caldwell Township	740	.....	.....	1	.....	.....	.....	1	2	.....	.....
Cedar Grove Township	2,409	1	.....	.....	.....	2	.....	27	10	.....	.....
East Orange City	39,889	12	1	96	9	65	1	67	49	78	.....
Essex Fells Borough	471	.....	.....	.....	.....	1	.....	1	1	.....	.....
Glen Ridge Borough	3,799	3	1	3	.....	4	.....	3	3	32	.....
Irvington Town	14,695	7	.....	61	1	35	.....	35	29	10	.....
Livingston Township	1,025	.....	.....	.....	.....	7	.....	4	1	.....	.....
Millburn Township	4,043	2	.....	.....	.....	2	.....	7	5	11	.....
Montclair Town	24,658	7	1	23	3	46	1	59	27	71	.....
Newark, City	385,977	227	36	1,597	93	986	30	2,221	688	1,129	1
North Caldwell Borough	662	.....	.....	2	.....	.....	.....	4	2	.....	.....
Nutley Town	6,880	.....	.....	11	1	4	.....	11	6	.....	.....
Orange, City	31,747	17	1	65	4	61	.....	119	62	88	.....
Roseland Borough	486	.....	.....	.....	.....	1	.....	1	.....	5	.....
South Orange Township	3,598	3	.....	8	.....	13	.....	10	7	2	.....
South Orange Village	6,663	6	2	3	.....	10	3	14	6	10	.....
Verona Borough	1,675	.....	.....	7	.....	5	.....	6	4	3	.....
West Caldwell Borough	496	.....	.....	.....	.....	3	.....	3	1	.....	.....
West Orange Town	12,845	4	.....	15	1	24	2	30	14	28	.....
	573,578	298	43	2.000	123	1,367	39	2,693	963	1,486	1

TABLE XVII. **MORBIDITY AND**

MUNICIPALITIES IN GLOUCESTER COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Clayton Borough	1,963	1	.....	.....	.....	.....	.....	2	7	.....	.....
Deptford Township	2,698	.....	.....	3	1	13	.....	7	3	2	.....
East Greenwich Twp.	1,470	1	.....	.....	.....	1	.....	1	.....	.....	.....
Elk Township	1,072	1	.....	1	.....	3	1	3	1	.....	.....
Franklin Township	2,847	.....	1	1	.....	1	.....	1	1	.....	.....
Glassboro Township	2,949	5	1	1	.....	6	1	7	3	23	.....
Greenwich Township	946	.....	.....	4	.....	2	.....	.....	.....	.....	.....
Harrison Township	1,716	1	.....	.....	.....	.....	.....	5	1	.....	.....
Logan Township	1,520	.....	.....	2	.....	2	.....	.....	.....	.....	.....
Mantua Township	1,563	.....	1	.....	.....	.....	.....	4	1	.....	.....
Monroe Township	3,313	2	.....	4	.....	30	1	1	3	2	.....
National Park Borough	424	5	.....	1	1	1	.....	3	3	.....	.....
Paulsboro Borough	2,032	5	2	12	1	36	.....	1	1	.....	.....
Pitman Borough	2,409	3	.....	1	.....	.....	.....	.....	.....	3	.....
South Harrison Twp.	702	.....	.....	.....	.....	.....	.....	1	1	.....	.....
Sweddeboro Borough	1,473	.....	.....	.....	.....	3	.....	2	.....	.....	.....
Washington Township	1,432	1	.....	.....	.....	3	.....	1	1	.....	.....
Wenonah Borough	691	2	.....	.....	.....	3	.....	.....	.....	.....	.....
West Deptford Twp.	1,955	2	.....	2	.....	10	.....	6	4	.....	.....
Woodbury City	4,691	5	.....	7	1	15	.....	9	8	27	.....
Woolwich Township	1,135	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	39,001	34	5	39	4	129	3	54	38	57	.....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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....	....	57	2	29	5	107	....	35	....	4	2	....	....	1	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XVIII. **MORBIDITY AND**

MUNICIPALITIES IN HUDSON COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Bayonne City	63,515	10	2	185	15	227	5	167	79	18	.....
East Newark Borough	3,364	.....	.....	3	.....	1	1	9	4	.....	.....
Guttenberg Town	6,297	.....	.....	57	7	10	1	13	9	2	.....
Harrison Town	15,503	7	.....	32	1	21	5	45	34	7	.....
Hoboken City	73,238	54	9	211	22	106	4	470	151	35	.....
Jersey City	288,827	92	31	638	70	692	42	1,011	524	171	1
Kearney Town	21,694	14	1	74	2	34	.....	42	20	30	.....
North Bergen Township	18,379	4	.....	59	10	58	1	51	20	1	.....
Secaucus Borough	5,669	.....	.....	18	3	8	1	13	32	.....	.....
Town of Union	23,434	3	1	67	7	29	1	95	32	.....	.....
Weehawken Township	13,149	9	2	24	3	17	.....	26	19	.....	.....
West Hoboken Town	39,196	17	2	119	15	99	5	90	61	13	.....
West New York Town	17,378	4	2	64	6	32	5	76	24	9	.....
	589,643	214	50	1,551	161	1,334	71	2,108	1,009	286	1

TABLE XIX. **MORBIDITY AND**

MUNICIPALITIES IN HUNTERDON COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alexandria Township	1,067	.....	.....	1	.....	.....	.....	3	.....	.....	.....
Bethlehem Township	980	.....	.....	.....	1	4	.....	.....	4	.....	.....
Bloomsbury Borough	600	.....	.....	.....	.....	5	.....	.....	.....	1	.....
Clinton Borough	840	.....	1	.....	.....	1	.....	2	.....	.....	.....
Clinton Township	2,157	7	1	.....	.....	.....	.....	2	2	.....	.....
Delaware Township	1,628	.....	.....	.....	.....	1	.....	3	2	.....	.....
East Amwell Township	1,171	1	.....	1	.....	2	.....	.....	1	3	.....
Flemington Borough	2,773	4	.....	7	1	1	.....	2	1	.....	.....
Franklin Township	1,095	.....	.....	.....	.....	.....	.....	2	1	.....	.....
Frenchtown Borough	989	.....	.....	.....	.....	7	.....	1	.....	.....	.....
Hampton Borough	878	.....	.....	4	.....	.....	.....	1	2	.....	.....
High Bridge Borough	1,643	3	1	.....	.....	.....	.....	.....	1	.....	.....
Holland Township	1,802	.....	.....	.....	.....	5	.....	.....	.....	.....	.....
Kingwood Township	1,311	.....	.....	.....	.....	.....	.....	1	1	.....	.....
Lambertsville City	4,442	14	1	3	.....	66	4	6	4	11	.....
Lebanon Township	2,297	1	.....	5	1	1	.....	9	3	.....	.....
Milford Borough	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....
Raritan Township	1,316	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Readington Township	2,657	.....	.....	.....	.....	7	.....	6	3	.....	.....
Stockton Borough	615	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tewksbury Township	1,698	1	.....	1	.....	.....	.....	1	1	.....	.....
Union Township	934	.....	.....	3	.....	.....	.....	.....	1	.....	.....
West Amwell Township	871	.....	.....	.....	.....	5	.....	1	1	.....	.....
	33,764	31	4	37	3	106	4	41	29	15	.....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthamia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XX.

MORBIDITY AND

MUNICIPALITIES IN MERCER COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
East Windsor Township	988								1		
Ewing Township	2,086	1	1			8		1			
Hamilton Township	9,548	13	1	9	1	5		10	4		
Hightstown Borough	1,751	1						4	5		
Hopewell Borough	1,126					6		1	2	7	
Hopewell Township	3,148			1		12	1	3	1		
Lawrence Township	2,809	1	1	8		22		2	4		
Pennington Borough	694					8	1		1		
Princeton Borough	4,600	8	1	2	1	32		19	13	2	
Princeton Township	1,198			1		4		3	2		
Trenton City	104,396	84	16	218	30	313	24	387	233	35	
Washington Township	1,040			1				3	3		
West Windsor Township	1,355			1		6	1	2	2		
	134,739	108	20	241	32	416	27	435	271	44	

TABLE XXI.

MORBIDITY AND

MUNICIPALITIES IN MIDDLESEX COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cranbury Township	1,399	1		1		3		6	3	3	
Dunellen Borough	2,274	1	1	1				1	1		
East Brunswick Twp.	1,602			3				5	1		
Helmetta Borough	713										
Highland Park Borough	1,999			2		5		2	4		
Jamesburg Borough	2,365	2	1	1				5	1	2	
Madison Township	1,644							3	2		
Metuchen Borough	2,277	1		14	1	3		9	3		
Milltown Borough	1,808	2		5		13	1	2	3		
Monroe Township	1,543	1						1			
New Brunswick City	23,541	13	4	37	3	79		46	51		
North Brunswick Twp.	1,027										
Perth Amboy City	35,857	103	6	227	28	77	8	77	40	53	
Piscataway Township	3,977	5		6		6		2	1		
Raritan Township	2,764	1				7		3	1		
Roosevelt Borough	5,786	5	1	13		6		3	4		
Sayreville Township	6,385	1		12	1	2		11	6	7	
South Amboy City	7,456	3		3	1	25	1	5	9		
South Brunswick Twp.	2,415	2	1	1	1	10		1		1	
South River Borough	5,484			7		2		8	7		
Spotswood Borough	623										
Woodbridge Township	8,948	12	1	47	2	15	1	20	17	1	
	121,887	153	15	380	37	253	11	210	154	67	

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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1	....	84	....	7	1	1	....	1	....	....	....	....	....	....	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Othalpmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.
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6	....	3	1	1	2	....	....	1	....	....	1	....	....	....	....

TABLE XXII. **MORBIDITY AND**

MUNICIPALITIES IN MONMOUTH COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Allenhurst Borough	341										
Allentown Borough	623	1		1				1	1		
Asbury Park City	10,150	8	1	4		10	1	21	15	36	
Atlantic Township	1,115							1	2		
Atlantic Highlands Boro.	1,754					7		3	3		
Avon Borough	488										
Belmar Borough	1,639	3	1	3		1		1	1		
Bradley Beach Borough.	2,269	2	1	2				3	2		
Deal Borough	338								1		
Eatontown Township	2,076	4		2	1			3	1	8	
Englishtown Borough	499										
Fair Haven Borough	....					1		2	2		
Farmingdale Borough	426			2		1				1	
Freehold Town	8,334	10	1	1		2		12	7	3	
Freehold Township	2,242	13	2	3	1			1	2	1	
Highlands Borough	1453	1		1		1		1	1		
Holmdel Township	960	1						1	3		
Howell Township	2,774			1		1		1	4		
Keyport Borough	3,655	11	2	4				4	5		
Long Branch City	13,967	26	3	11	4	7		28	18	10	
Manalapan Township	1,365	4		1					2		
Manasquan Borough	1,550	2		2		15	1				
Marlboro Township	1,808				1						
Matawan Borough	1,746							1			
Matawan Township	1,536	1				1		2	1		
Middletown Township	7,284	2		4	1	8	1	7	10	2	
Millstone Township	1,478	1	1					1	2		
Monmouth Beach Boro.	485										
Neptune Township	5,551	7	1	1		6		8	4	1	
Neptune City Borough	296			1							
Ocean Grove	....			2				3			
Ocean Township	1,377	2	1				1		3	2	
Raritan Township	1,649	2		2		2					
Red Bank Borough	8,079	8	1	15	1	11	1	7	5	3	
Rumson Borough	1,449			1		1		4	3		
Seabright Borough	1,250	2				1		1	1	1	
Shrewsbury Township	3,238							1	3		
Springlake Borough	741	4	2	1				1	2		
Upper Freehold Twp.	2,084							3	2	2	
Wall Township	3,996	5		14	4			5	2		
West Long Branch Boro.	879										
	97,944	120	17	79	13	76	5	127	109	70	.....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XXIII. MORBIDITY AND

MUNICIPALITIES IN MORRIS COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Boonton Town	4,930	2	....	....	...	1	....	4	3	....	....
Boonton Township	428	....	....	1	....	....	....	....	4	....	....
Butler Borough	2,311	1	....	....	....	5	....	8	3	....	....
Chatham Borough	2,068	....	....	3	1	....	....	3	5	7	....
Chatham Township	921	....	....	....	....	....	....	2	2	....	....
Chester Township	1,175	....	....	....	....	....	....	....	3	....	....
Dover Town	8,137	1	1	15	2	5	....	13	7	11	....
Florham Park Borough	411	....	....	....	....	1	....	....	2	....	....
Hanover Township	6,788	2	....	2	1	5	....	24	13	....	....
Jefferson Township	1,329	....	....	....	....	12	1	2	4	....	....
Madison Borough	4,984	1	....	1	....	4	....	7	4	....	....
Mendham Borough	1,129	....	....	....	....	....	....	18	....	1	....
Mendham Township	792	....	....	7	....	3	....	1	....	....	....
Montville Township	2,120	....	....	4	....	1	....	3	1	....	....
Morristown City	12,724	15	2	10	1	19	....	25	19	....	....
Morris Township	3,362	....	....	1	....	....	....	....	....	....	....
Mt. Arlington Borough	294	....	....	....	....	....	....	....	....	....	....
Mt. Olive Township	1,197	....	....	4	....	3	....	1	1	....	....
Mt. Tabor Borough	....	....	....	....	....	....	....	....	....	....	....
Netcong Borough	1,837	....	....	....	....	2	....	2	5	....	....
Passaic Township	2,166	....	....	....	....	2	....	1	1	....	....
Pequannock Township	2,069	....	....	1	....	....	....	2	1	....	....
Randolph Township	2,295	....	....	4	1	....	....	2	2	....	....
Rockaway Borough	2,092	....	....	2	....	6	....	1	1	....	....
Rockaway Township	4,835	....	....	2	....	....	1	1	4	....	....
Roxbury Township	2,469	2	....	3	....	35	....	4	3	4	....
Washington Township	1,827	....	....	6	....	....	....	2	5	10	....
Wharton Borough	3,401	....	....	....	....	2	....	3	2	....	....
	78,091	24	3	66	6	106	2	129	95	33	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XXIV.

MORBIDITY AND

MUNICIPALITIES IN OCEAN COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Barnegal City Borough..	65	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Bay Head Borough.....	283	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beach Haven Borough...	255	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berkeley Township......	620	1	.....	2	.....	.....	.....	.....	.....	.....	.....
Brick Township.........	2,210	1	.....	1	.....	.....	.....	.....	3	.....	.....
Dover Township........	2,202	1	.....	10	.....	2	.....	3	4	6	.....
Eagleswood Township...	560	2	.....	.....	.....	.....	.....	.....	1	.....	.....
Harvey Cedars Borough.	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Island Heights Boro.....	351	.....	.....	.....	.....	1	.....	1	.....	.....	.....
Jackson Township......	1,200	.....	.....	.....	.....	1	.....	.....	3	.....	.....
Lacey Township........	571	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lakewood Township....	5,679	5	2	1	.....	27	1	14	6	11	.....
Lavallette Borough.....	54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Little Egg Harbor Twp..	311	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Long Beach Township...	127	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Manchester Township...	1,308	.....	.....	2	.....	17	1	.....	1	.....	.....
Ocean Township........	390	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Plumstead Township....	1,052	1	1	.....	.....	.....	.....	1	2	.....	.....
Pt. Pleasant Beach Bor..	1,018	5	1	.....	.....	.....	.....	.....	.....	.....	.....
Sea Side Park Borough..	106	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stafford Township.	898	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Surf City Borough......	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuckerton Borough.....	1,230	.....	1	.....	1	.....	.....	.....	1	.....	.....
Union Township........	1,023	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	21,580	17	6	16	1	58	2	21	22	17	.....

TABLE XXV.

MORBIDITY AND

MUNICIPALITIES IN PASSAIC COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Acquackanonk Towns'p .	14,687	3	.....	47	3	13	.....	22	15	.....	.....
Haledon Borough........	2,560	3	.....	7	1	1	.....	4	3	1	.....
Hawthorne Borough.....	3,899	.....	.....	4	.....	.....	.....	3	2	.....	.....
Little Falls Township....	4,153	1	1	2	1	5	.....	4	3	.....	.....
North Haledon Borough.	780	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
Passaic City............	64,936	22	2	83	14	60	6	133	70	80	.....
Paterson City..........	134,043	52	9	204	16	146	4	332	189	36	.....
Pompton Township.....	4,682	.....	.....	4	1	1	.....	7	9	.....	.....
Pompton Lakes Bor.....	1,088	.....	.....	.....	.....	1	.....	.....	1	.....	.....
Prospect Park Borough.	3,204	3	.....	4	.....	1	.....	4	.....	.....	.....
Totowa Borough.	1,365	2	.....	5	.....	2	.....	1	1	.....	.....
Wayne Township.	2,439	.....	.....	.....	.....	3	.....	.....	3	.....	.....
West Milford Township. .	1,934	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	239,761	86	12	360	36	235	10	510	296	117	.....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XXVI.

MORBIDITY AND

MUNICIPALITIES IN SALEM COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alloway Township	1,516	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Elmer Borough	1,136	9	1	.....	.....	2	.....	5	5	6	.....
Elsinboro Township	432	.....	.....	.....	.....	.....	.....	2	1	.....	.....
L. Alloway Creek Twp.	1,271	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
L. Penns Neck Twp.	1,674	.....	.....	.....	.....	.....	.....	1	2	.....	.....
Mannington Township	1,578	.....	.....	1	.....	2	.....	.....	4	.....	.....
Oldmans Township	1,358	.....	.....	.....	.....	1	.....	3	1	.....	.....
Penns Grove Boro.	2,152	.....	.....	32	1	2	.....	4	3	1	.....
Pilesgrove Township	1,822	.....	.....	4	.....	.....	.....	.....	5	.....	.....
Pittsgrove Township	2,538	1	.....	.....	.....	6	.....	1	2	.....	.....
Quinton Township	1,065	.....	.....	1	.....	.....	.....	.....	1	.....	.....
Salem City	6,717	4	.....	7	1	11	.....	6	11	1	.....
Upper Penns Neck Twp.	713	1	.....	1	1	.....	.....	2	2	1	.....
Upper Pittsgrove Twp.	1,773	3	.....	.....	.....	.....	.....	2	2	1	.....
Woodstown Borough	1,681	4	1	1	.....	5	.....	3	2	.....	.....
	27,426	22	2	48	3	29	.....	29	42	10	.....

TABLE XXVII.

MORBIDITY AND

MUNICIPALITIES IN SOMERSET COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Bedminster Township	2,452	.....	.....	.....	.....	5	.....	.....	2	.....	.....
Bernards Township	4,664	.....	.....	6	.....	.....	.....	4	2	.....	.....
Bound Brook Borough	4,319	2	.....	47	7	2	.....	3	5	.....	.....
Branchburg Township	965	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bridgewater Township	2,091	1	.....	9	2	2	.....	.....	.....	.....	.....
Franklin Township	2,819	.....	.....	7	.....	3	.....	2	3	1	.....
Hillsboro Township	2,353	.....	.....	1	.....	2	.....	.....	3	.....	.....
Millstone Borough	158	.....	.....	.....	.....	3	.....	.....	.....	.....	.....
Montgomery Township	1,717	1	.....	.....	.....	.....	.....	1	3	.....	.....
No. Plainfield Borough	6,418	.....	.....	25	1	8	.....	9	2	.....	.....
No. Plainfield Twp.	1,002	.....	.....	.....	1	1	1	.....	1	.....	.....
Peapack-Gladstone Boro	.....	1	.....	.....	.....	2	.....	1	1	.....	.....
Raritan Town	3,503	1	.....	15	2	.....	.....	4	4	.....	.....
Rockyhill Borough	515	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Somerville Borough	5,227	4	.....	8	1	6	.....	9	9	.....	.....
So. Bound Brook Boro.	1,075	.....	.....	4	.....	1	.....	.....	1	.....	.....
Warren Township	1,073	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
	40,351	10	.....	122	14	36	1	33	37	1	.....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XXVIII. **MORBIDITY AND**

MUNICIPALITIES IN SUSSEX COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Andover Borough	1,158							1			
Andover Township	546							2	1		
Branchville Borough	706										
Byram Township	1,432										
Frankford Township	1,008	2						1	1		
Franklin Borough	....	3		2				1	1		
Fredon Township	454			1							
Green Township	1,121										
Hampton Township	700	1							1		
Hardyston Township	6,276	1		1		19	1	1	2	8	
Hopatcong Borough	159								1		
Lafayette Township	721										
Montague Township	597					3			1		
Newton Town	4,494	6		10				4	2		
Sandyston Township	845										
Sparta Township	1,559							4	1		
Stanhope Borough	1,117					1		2	5		
Stillwater Township	785	1							1		
Sussex Borough	1,148							1	2		
Vernon Township	1,691	1				7		1			
Walpack Township	263										
Wantage Township	2,075							3	2		
	28,855	15		14		30	1	21	21	8	

TABLE XXIX. **MORBIDITY AND**

MUNICIPALITIES IN UNION COUNTY,

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Clark Township	518	1									
Cranford Township	3,641	2		3	1	2		5	3	3	
Elizabeth City	81,149	40	9	160	7	117	7	292	141	158	
Fanwood Borough	487					2		2	1		
Fanwood Township	1,781			1		2		3	5	1	
Garwood Borough	1.450	1		2		1		3	3		
Hillside Township	....						1				
Kenilworth Borough	779	2		5		8	1	4	1		
Linden Borough	734			4		2		3	6	1	
Linden Township	2,523	5		3				1	1		
Mountainside Borough	391					1			1		
New Providence Boro	944	1							2		
New Providence Twp	568							8	1		
Plainfield City	21,799	12	3	18	2	53	12	61	29	39	
Rahway City	9,750	12	1	10		32		28	14	42	
Roselle Borough	3,074	1		4		1		7	3	3	
Roselle Park Borough	3,679	1		7	1	1		6	2		
Springfield Township	1,320			6				4	2	6	
Summit City	7,893	6	1	16	3	2		22	15	25	
Union Township	3,902			7		3		4	5		
Westfield Town	7,113	4	1	3		7		12	5	45	
	153,495	88	15	249	14	234	21	465	240	323	

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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TABLE XXX. MORBIDITY AND

MUNICIPALITIES IN WARREN COUNTY.

MUNICIPALITIES.	Estimated Population.	Typhoid fever.		Diphtheria.		Scarlet fever.		Tuberculosis.		Chicken-pox.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Allamuchy Township	685	....	....	....	....	....	....	....	....	....	....
Alpha Borough	....	6	1	1	....	4	....	1	3	2	....
Belvidere City	1,701	....	1	....	....	1	....	....	1	....	....
Blairstown Township	1,827	1	....	....	....	8	....	....	1	....	....
Franklin Township	1,751	....	....	....	....	7	....	....	3	2	....
Frelinghuysen Twp	1,282	....	....	....	....	2	....	....	....	....	....
Greenwich Township	934	1	....	....	....	6	....	....	1	....	....
Hackettstown Town	2,788	1	....	2	....	1	....	5	3	....	....
Hardwick Township	426	....	....	....	....	....	....	....	....	....	....
Harmony Township	1,732	....	....	2	1	....	....	....	....	....	....
Hope Township	1.175	....	....	....	....	....	....	1	1	....	....
Independence Township	886	....	....	....	....	....	....	2	1	....	....
Knowlton Township	1,756	....	....	1	....	....	....	....	2	....	....
Lopatcong Township	809	....	....	....	....	....	....	....	1	....	....
Mansfield Township	1,240	....	....	2	2	....	....	2	2	....	....
Oxford Township	3,732	10	....	....	....	....	....	5	3	....	....
Pahaquarry Township	190	....	....	3	....	....	....	....	....	....	....
Phillipsburg City	14,234	3	1	24	3	20	1	10	13	12	....
Pohatcong Township	3,078	....	....	1	....	5	....	....	2	....	....
Washington Borough	3,649	....	....	....	....	1	....	10	5	....	....
Washington Township	983	....	....	....	....	3	....	....	....	....	....
	44,858	22	3	36	6	58	1	36	42	16	....

MORTALITY TABLE.

FOR THE YEAR ENDING OCTOBER 31, 1913.

Small-pox.		Malaria.		Anterior Poliomyelitis.		Trachoma.		Opthalmia.		Hydrophobia.		Anthrax.		Trichinosis.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
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INDUSTRIAL DISEASES.

An Act was adopted in 1912 requiring reports of cases of certain Industrial Diseases to be made to the State Board of Health, and further requiring that the Board shall transmit the data received under the provisions of the Act to the Commissioner of Labor. The cases that have been reported during the year are shown in the following table:

TABLE SHOWING NUMBER OF CASES OF INDUSTRIAL DISEASES REPORTED DURING THE YEAR ENDING OCTOBER 31, 1913.

TABLE XXXI.

Sanitary District	*County.*	*Arsenic*	*Lead Poisoning*	*Compressed Air*	*Mercury.*
Newark, City	**Essex**	**2**	**53**	**1**	**2**
Camden, City	**Camden**		**3**		
Morristown, City	**Morris**		**1**		
Totals		**2**	**57**	**1**	**2**

EPILEPSY AND MENTAL DEFICIENCY.

On March 27, 1911, an act was approved by the Legislature requiring physicians to report cases of epilepsy and mental deficiency to local boards of health, and providing that a duplicate of the facts contained in any report made pursuant to the act should be forwarded through the office of the State Board of Health to the Commissioner of Charities.

From the small number of reports that have been received of this class of defective citizens it is probable that practicing physicians throughout the State have not yet become familiar with the provisions of the new law.

TABLES SHOWING THE NUMBER OF CASES OF EPILEPSY AND MENTAL DEFICIENCY REPORTED DURING THE YEAR ENDING OCTOBER 31, 1913, ARRANGED BY SANITARY DISTRICTS AND ACCORDING TO AGE PERIODS.

TABLE XXXII.

Sanitary Districts.	*County*	*Mental Deficiency.*	*Epilepsy.*
Hackensack Town	Bergen	1	1
Midland Park, Boro.	Bergen	1	
Camden City	Camden	1	1
Dennis Twp.	Cape May		1
Wildwood City	Cape May		1
Newark City	Essex	92	49
Orange City	Essex	31	8
Harrison Twp.	Gloucester	1	
South Harrison Twp.	Gloucester	3	
Guttenberg Town	Hudson	1	
Jersey City	Hudson	1	
North Bergen Twp.	Hudson	1	
West New York Town	Hudson	14	1
Princeton Boro.	Mercer		1
Trenton City	Mercer		1
Dover Town	Morris		2
Cranford Twp.	Union		2
	Totals	147	68

TABLE XXXIII.

Age Periods.	*Mental Deficiency*	*Epilepsy.*	*No. of Cases.*
0—5	8	1	9
6—10	30	7	37
11—15	51	17	68
16—20	8	11	19
21—25	1	8	9
26—30	0	4	4
31—35	0	5	5
36—40	0	1	1
41—45	1	2	3
46—50	0	4	4
51—55	0	1	1
56—60	1	1	2
61—65	1	1	2
66—70	0	0	0
71—75	0	0	0
76—80	0	0	0
81—85	1	0	1
	102	63	165
Age not given	45	5	50
	147	68	215
Number of cases reported in males	96	43	139
Number of cases reported in females	50	25	75
	146	68	214
Sex not stated	1	0	1
Totals	147	68	215

THE TUBERCULOSIS EXHIBIT.

The second year's work provided for under an Act * appropriating Ten thousand dollars ($10,000.00) annually to fight tuberculosis closed October 31st, 1913. An account of the stewardship of this fund is a record of hard campaigning with the Tuberculosis Exhibit. There has been scant time for any other kind of work but the record of achievement with the Exhibit herewith presented is one to leave little else to be expected.

EXHIBIT WORKERS.

The force handling the Exhibit has consisted regularly of the Tuberculosis Inspector and a mechanisian. An assistant inspector was employed temporarily for a little more than two months to assist in the Jersey City campaign. Stenographers have been employed in the office for periods aggregating approximately two months to do the necessary stenographic work connected with the Exhibit, management and reports.

CHANGES IN EXHIBIT.

Few changes have been made in the Exhibit as originally constructed. These changes consist chiefly in the addition of a few charts giving the tuberculosis death rate, and the purchase of two new motion picture films entitled "Hope" and "The Trail of the Germs."

WEAR AND TEAR.

Since its construction the Exhibit has been shown fifty-two times in as many places. The main exhibit has stood this hard campaigning well. Only three or four pictures have been soiled enough to require replacing. Owing to moves being made by wagon instead of by train, the necessary repairs have been slight. The motion picture booth has been the chief part to suffer. The asbestos board used in the construction of this booth is brittle and easily broken. The booth, therefore, has required frequent and rather extensive repairs.

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*Chapter 12. Laws of N. J., 1910.

The motion picture machine itself was guaranteed for one year from date of purchase. Just before the expiration of this guarantee the machine was returned to the manufacturer and received a complete overhauling. This was the addition of a new rheostat put the motion picture equipment other than the booth in first class condition.

Care in using the motion picture films has secured the maximum of service with the minimum of wear. Only one film, "The Fly Pest," has had to have any of its sections replaced. After running it some 266 times (up to August 1, 1913) the first three or four sections were so broken and torn as to require new scenes to replace them.

ESCAPE FROM FIRE.

All of our lantern slides and a few unimportant banners were lost in a fire that destroyed the West Orange high school building on Thursday evening, February 27, 1913. That the entire exhibit was not lost in this fire was a piece of good fortune due in a measure perhaps to chance. The schedule for the exhibit covering four points in the Oranges and other points at subsequent dates had been made before the application to go to West Orange was received. It was found mechanically impracticable to take the exhibit to West Orange and then move it to the next place provided for in the schedule. For that reason a series of lectures was arranged without the exhibit, and, therefore, the exhibit escaped damage by fire. New slides were made in time for use at the next show. Thus no time was lost by reason of the fire.

A number of valuable local exhibits were destroyed. Among these may be mentioned the exhibits of the Orange League for the Prevention of Tuberculosis, the Orange Board of Health, the Orthopedic Hospital of Orange, and an extensive exhibit of dairy conditions borrowed from the National Bureau of Animal Industry.

PLAN OF CAMPAIGN.

The same general plan of campaign has been used that was developed during the previous year's work. The smaller cities are treated as units while the larger ones are divided into sections and covered a section at a time. A large auditorium is selected, usually an auditorium in a school building, and the exhibit is open afternoons for school children and evenings for adults.

ADVERTISING:—Advertising is done by means of window cards announcing the time and place and small dodgers or handbills giving the program of speakers for the various lectures. Sometimes this is supplemented by one sheet posters for billboard posting. In all cases the widest possible use is made of press notices and announcements from churches, lodges and other organizations.

ORGANIZING A CAMPAIGN.—Dependence is placed in a local committee for the local publicity work. For the purpose of offering suggestions as to the local activities advance visits are made and committees are met by the tuberculosis inspector and recommendations are made concerning the method of procedure and organization of committees to do the local work. A pamphlet entitled "How to Use an Exhibit" printed near the close of the year, is designed to be a guide to local committees in organizing the publicity campaign.

COOPERATION.—The exhibit continues to secure the full and enthusiastic cooperation of local boards of health, boards of education and various voluntary organizations in nearly all cases. It is this splendid cooperation on the part of the local people in each community that makes the exhibit such a success.

LOCAL EXHIBITS.

Accumulating experience abundantly confirms the wisdom of the policy of adapting the exhibit as much as possible to local conditions. One of the most effective methods of accomplishing this is by the use of local pictures showing unsightly and unsanitary conditions. Formerly it was the custom to put up prints of these pictures and call attention to them in the lectures. More recently the pictures have been made into lantern slides and shown on the screen. This is found to make a far stronger impression upon the audience than merely exhibiting the prints.

The taking of local pictures is considered one of the best things done in connection with the exhibit. People are made to realize that bad living conditions are not confined to distant cities, but that dark rooms, outside privies, dirty back yards and other unsanitary or unsightly conditions exist at their very doors. Local boards of health are stimulated to greater activity by showing up local conditions. Incidentally, a valuable collection of pictures of living conditions in various parts of the state is being acquired.

The spot map continues to be an effective method of impressing people with the extent of the ravages of tuberculosis. In one city an editorial in a local paper criticising the spot map on account of its supposed effect on real estate values, led to considerable discussion which secured wider publicity for the tuberculosis situation than was expected.

Some very valuable exhibits have been presented by local boards of health and various other organizations in connection with the State Tuberculosis Exhibit. Among the local board of health exhibits deserving special mention are those of Passaic, Montclair, the Oranges and Irvington. Some of the other organizations furnishing valuable exhibits have been the Tuberculosis Committee at Paterson, the Tuberculosis Association of Montclair, the Tuberculosis League, Orthopedic Hospital and Visiting Nurses Association in the Oranges, the Hudson County Tuberculosis Hospital in Hudson County, the Stevens' Fund for Municipal Research in Hoboken, the Diet Kitchen at Passaic and the Medical Inspector of Schools and the Public Library at Bayonne.

In addition to the exhibits prepared by these various organizations much credit is due to the local committees in most places for the construction of life size contrast rooms which show most graphically the difference between sanitary and unsanitary conditions.

LECTURES.

Nearly all the people who visit an exhibit do so at a lecture hour and thus see the exhibit and hear a lecture at the same time. Some of the most prominent men and women in each community speak at the exhibit. All of the lecturing to children, however, and much of the lecturing to evening audiences is done by the tuberculosis inspector. As a rule the local speakers prefer to make short addresses and leave most of the time for talks with pictures.

A list of speakers at the exhibit since it started on the road also include some of the most prominent men in the tuberculosis campaign in the country. Among the speakers from out of the State may be mentioned Doctors Livingston Farrand, James A. Miller, S. Adolphus Knopf, Alfred Meyer, Antonio Stella, and Louis I. Dublin, of New York, and Doctors Frank A. Craig and Ward Brinton, of Philadelphia.

MOTION PICTURES.

The popularity of the motion picture is unabated. Its effectivenes as a means of instruction is unquestioned. The permanence of impression gained through its instrumentality is undoubted. That the motion picture is destined to occupy a much larger place than at present in our fight against disease, seems certain. The motion picture is not a fad, it is an addition to the equipment for popular education that is bound to assume increasing importance as its merits are more fully recognized.

An interesting experience in Passaic indicates that the motion picture may be adopted instead of photographs to show local conditions in connection with the exhibit. A reel or two of motion pictures showing views about the city, some of the city's prominent citizens, and the work of the various departments of the city government. were shown in connection with the regular tuberculosis park shows in Passaic. It is thought that they helped to bring out unusually large audiences. The total attendance for five shows was estimated at 19,000. In view of the advertising value of the motion picture the purchase of a camera for taking pictures of local conditions for use with the exhibit may well be worth considering.

LENGTH OF STAY IN EACH PLACE.

Out of the experience of the past year has developed a definite method of calculating the time to be devoted to each community. Given the size of the auditorium to be used and the number of school children to be accommodated, it is easy to calculate how many afternoon sessions will be required to give all the children an opportunity to attend. This is also about the time required for the evening lectures for the general public. The length of stay in a place will, therefore, vary from two or three days in the smaller towns, to a week for each 20,000 to 40,000 population in the larger cities.

TERRITORY COVERED.

The method of completing a systematic campaign in one county before going to the next county has been continued during the past year. The twenty months that have elapsed since the exhibit began traveling have seen the campaign completed in the counties of Monmouth, Bergen, Passaic, Essex and nearly all of Hudson. This territory contains more than half the population of the State. It is likely, however, that more time will be required to complete the tour of the State than has been consumed in the work to date. As greater distances must be traveled, more time must be allowed for moving.

Speeding Up: From January 13, to June 6, 1913, the exhibit was busy every week but two. One of these weeks was school vacation. From the week beginning January 27 till the week ending June 6, a period of 19 weeks, the only week during which the show was idle was spring vacation in the schools. In order to maintain this rate of speed it was necessary to employ a temporary assistant to help with the Jersey City campaign. Short moves made the transportation of the exhibit an easy proposition.

The fall campaign, beginning September 8 in West Hoboken, and ending December 19 in Trenton, thus covering parts of two fiscal years, will make a record of a show a week for 15 weeks, with two shows in one week for good measure, making in all 16 shows in 15 consecutive weeks. This speed is made possible by thoroughly systematizing the work and relying almost wholly on a local committee to do the preliminary publicity work in each community. Others traveling with exhibits usually plan to give a show every second or third week, and use the intervening time in making the preliminary arrangements.

TOWNS VISITED WITH EXHIBIT. During the past year the exhibit has been shown in the following towns and cities: Passaic, Garfield, Paterson (3 shows), Montclair, Bloomfield, Orange (2 shows), East Orange, South Orange, Belleville, Nutley, Irvington, Jersey City (8 shows), Hoboken, West Hoboken, Union Hill, North Bergen, Weehawken, West New York, Guttenberg, and Bayonne (2 shows). This makes a total of 31 shows in 20 different municipalities. As three of these shows were two weeks' stands (Paterson High School, a store in Paterson, and Hoboken High School), the exhibit has been in use 34 out of the 52 weeks in the year.

During the summer season when the schools were not in session the main exhibit was stored and motion picture shows were given in the parks and playgrounds of Newark, Passaic, the Oranges, Hoboken and Jersey City. It was not considered wise to give these outside shows in advance of the regular campaign in connection with the schools.

LITERATURE DISTRIBUTED.

Two or three large editions of the two-color folder "How to Prevent Tuberculosis" have been printed and distributed, and a very important new circular, entitled "Rules and Regulations for the Care of Tuberculosis Patients," has been prepared and published. This new circular contains the rules passed by the State Board of Health as required by law,* together with "Advice to Patients" in regard to obeying them and additional advice concerning other methods of preventing the spread of the disease. General observance of these rules should result in a great reduction in the spread of infection.

OUTSIDE LITERATURE AT EXHIBIT.

There have been a number of requests to distribute outside literature at the exhibit. Such requests have come so frequently and from such various sources as to require the adoption of a very definite policy concerning the distribution of outside literature.

The policy that has been adopted is to permit the distribution of literature of tuberculosis or other health subjects issued by local boards of health, tuberculosis associations and other philanthropic associations co-operating with the exhibit management. Permission has also been granted to distribute the literature issued by such co-operating organizations, setting forth the nature and purpose of the organizations when they exist solely for the prevention of tuberculosis or other philanthropic purposes.

The following have been distributed under this rule: folders giving the purpose of the Monmouth County Branch of the State Charities Aid Association, leaflets giving quotations from eminent medical men on the effects of alcohol on the body, leaflets on the care of infants issued by the Orange Board of Health, leaflets on the work of the Anti-Tuberculosis League of the Oranges cards giving lists of books on health and hygiene in the East Orange Public Library and the Bayonne Public Library, cards giving lists of officials of the Hudson County Tuberculosis Hospital and Red Cross Seal leaflets during the Red Cross Seal campaign. Lantern slides have been displayed a time or two announcing school entertainments.

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*Chapter 217, section 9, Laws of 1912.

Permission to distribute literature or run announcement slides has always been denied when there could be the slightest suspicion of commercialism even though the literature were on the subject of tuberculosis. Thus the following have not been allowed; the running of slides advertising a dairy, the distribution of literature advertising a milk firm, the display of milk bottle caps with the name of a dairy printed on them and the distribution of literature on tuberculosis and other health subjects furnished by a Life Insurance Company.

Another question presented for consideration involves the same principles. The Public Corporation has a special motion picture film on "Safety," which was offered for use in some of the park shows. Its use was urged by men interested solely in the propaganda for the prevention of accidents. In this case not only was the film offered by a private corporation, but there was a question as to whether or not the wording of the law under which we are operating would permit the use of outside material to the displacement of films or slides on the subject of tuberculosis. After due consideration it was decided not to use the "Safety" film.

PRESS PUBLICITY.

The newspapers have been liberal in the space allotted to reporting the Tuberculosis Exhibit. By that means the message of the preventability of tuberculosis has been carried to several times the number of people that have actually attended the exhibit.

STATISTICAL RESULTS.

Until some better method of measuring the results of educational work can be devised, it will be necessary to recite certain numerical records as evidence of activity. During the 34 weeks the exhibit has been in use it has been open 147 days and park shows have been given on 29 additional days. The attendance at the exhibit has been nearly a quarter of a million (247,237). of which nearly 200,000 also heard the 273 lectures. Adding to this number those who saw the 29 park shows the total attendance for the year has been 330,937. The total attendance since the exhibit started on the road (March 5, 1912 to October 31, 1913) has been 437,894. All together more than a million different pieces of literature, both educational and advertising, have been printed and distributed. Over 600,000 of these were distributed last year, of which more than a quarter of a million were educational and the balance advertising.

OTHER RESULTS.

The real results of the exhibit work are accomplished in the people's minds and cannot be measured by mere figures. Their scope and extent can be partially appreciated by considering a few surface indications. On one occasion the next week after the exhibit had been held in a town of 14,000 population the Town Council met and appropriated enough money to put a health officer on for his entire time instead of part time as was the previous arrangement. This action is said to have been due to the influence of the exhibit. Such a result is most gratifying as it indicates that the exhibit had produced a firm determination to secure better health condition in the town.

Numerous stories have been told to illustrate impressions that have been made on the minds of individuals. In one case a boy saw a woman shaking a rug out of the window. He called to her saying that there may be germs in the rug and that if there were she was spreading disease. The woman smiled and stopped shaking the rug. Mayor Cooke of Hoboken, tells how the exhibit impressed his 11 year old son. Some time after visiting the exhibit and seeing the "Fly Pest" film the boy was eating ice cream. A fly got on it and the boy pushed the cream aside saying, "I don't want that." The father suggested that it would be all right if he would take the fly off, but the boy replied, "No, I don't want it; the fly may have germs on it." It certainly takes a strong impression to cause a boy to refuse ice cream.

Amusing results sometimes occur that cannot be foreseen in emphasizing the danger of flies and the necessity for combating them. Following the visit of the exhibit to one city a sign appeared in a vacant lot giving this warning: "Do not throw tin cans here; they breed flies."

It is believed that the best and most lasting results of the exhibit work are obtained with children. When children are made to understand some of the fundamental principles underlying the cause and prevention of disease, they can be relied upon to apply such knowledge in the course of their future lives. Older people have their habits of life well fixed. They are not apt to change much. If they do change, it is more likely to be brought about through their children than by any other means.

It is most gratifying to note that the children get very accurate ideas of disease prevention and that they weave these ideas into their plans for living in such a way as to insure results. When accurate knowledge of the methods of preventing disease can thus be instilled into the minds of the rising generation, the result will be told in greater health and efficiency in future years.

PLANS FOR FUTURE WORK.

The routine of work with the exhibit and the lack of funds to employ additional help has prevented the carrying out of many of the plans announced in the report of last year. Further reflection will no doubt result in certain modifications of the plans previously formulated, fitting them to particular needs so that they may be put into operation when the occasion arises. Since the Tuberculosis exhibit is the first definite step the State Board of Health has taken in publicity work, it is, perhaps, natural to expect that other steps will come as a development from the tuberculosis work.

Press Service. Lack of funds has prevented the establishment of a regular press service under a paid head. So great has the need for such a service been felt that the Board has decided to add to its other duties the task of providing the press of the state with some material concerning health conditions. This is a most important step, and it is hoped that in the near future funds may be available to establish a regular press service that will utilize to the greatest possible extent the public press as a means for the dissemination of knowledge concerning hygiene and the prevention of disease.

MONTHLY BULLETIN. Each year's experience serves to strengthen the conviction that there should be closer cooperation between the state and local boards of health. Probably the most important factor in securing such cooperation would be the establishment of a monthly bulletin by the State Board of Health. The need of such a bulletin has been felt for years. The time is rapidly approaching when it will be felt not only as a need, but as a necessity. With the awakening to the importance of attention to health matters, which is evident everywhere and which the tuberculosis exhibit has stimulated, there comes the necessity of a film grasp of the situation by a central controlling board that will insure uniformity of health laws and administration throughout the state. This board, of course, must be the State Board of Health, and its grasp of the situation can never be firm until it has this bulletin to serve both as a medium for communicating with the local board and for the interchange of opinion among local health officers themselves.

SCHOOL OF SANITATION. One of the greatest difficulties in securing uniformity of local health administration is the changing personnel of the local health officials. About the time one set of officials becomes trained to do the work well a change is made and another set takes their place and the training must begin over again. It is coming to be recognized more and more clearly that efficient health administration requires special training. In the smaller towns and boroughs it is out of the question to secure health officers who have been trained in technical schools. If the State Board of Health could establish a regular school of sanitation for the instruction of these health officers it would be of great value in securing better work in the smaller communities. The work of such a school of sanitation should be conducted both by means of a course of lectures and actual field work with the state inspectors. The course should be given at frequent enough intervals so that each course could be taken by a small group. The work with a small group will be much more effective than with a large group.

SMALL PORTABLE EXHIBIT. The construction of a small portable exhibit for use in some of the smaller communities of the state as suggested in the report last year has not been forgotten. It is recognized, however, that such an exhibit would be useless without some one to handle it. Until such time as an appropriation sufficient to insure proper handling of such an exhibit can be secured, it is likely it will not be considered advisable to construct it.

LECTURES. Perhaps the same may be said of lectures. At least the demand heretofore has been for someone to give lectures and not for the ready-made lectures that other people can give.

LITERATURE. In addition to the literature which is now in use on tuberculosis, the State Board should have literature giving information about all preventable diseases and all phases on the subject of sanitation with which the board deals. Under the law as it is now worded literature dealing with subjects other than tuberculosis cannot be printed out of the tuberculosis fund. In order to secure the preparation and printing of such literature it will be necessary to change the wording of the law and increase the appropriation to cover the increased expense.

After literature is once prepared and printed there arises the problem of distribution. General distribution through the mails is usually more expensive than the printing. For reaching the rank and file of the population of the state, which must be reached in any popular proganda work, no agency can be of more service than the schools. Through the schools literature giving information on health and sanitary subjects can be placed in almost every home. The utilization of this agency requires carefully worked out plans. At present no one has the time to take the matter up even though the literature were available.

FUTURE OF THE EXHIBIT ITSELF.

The exhibit as a means of teaching health and hygiene is but the adaptation of the method af teaching through the eye that has been used so successfully in the schools for several years. Those who think that the exhibit has outlived its usefulness either have in mind the wrong kind of an exhibit or do not know how to use it. An exhibit composed entirely of statistical matter, even though the material be worked up in the form of charts and diagrams, is not the kind of an exhibit that will appeal to the popular mind. No doubt such an exhibit as was used several years ago has outlived its usefulness. An exhibit must grow with the growth of thought. If it fails to grow it becomes fossilized. An exhibit with well-selected pictures that "talk to you," as has been said of the pictures of the New Jersey State Tuberculosis Exhibit, cannot fail to be a useful agency in popular education if properly used. That such an exhibit has the power to attract and hold the interest of many people is fully demonstrated in the work of the New Jersey Tuberculosis Exhibit. From the experience of the last two years it is delieved that a carefully constructed exhibit brought up to date in every particular will always be of great value in educational work.

Last year it was thought that after completing the tour of the state with the present tuberculosis exhibit it migh be advisable to expand it into a general health exhibit. After further experience and deliberation this rather simple plan has developed into a much more pretenious program. This program is based upon the consideration of a few fundamental principles.

In the first place, tuberculosis will not be eradicated so quickly that we can soon let up on the educational compaign. If we are to continue the fight, we need an exhibit with which to conduct it. It goes without saying that such an exhibit should be kept up to date so as to present all phases of the problem that are brought into prominence by our increasing knowledge and by the efforts made to prevent the disease. Tuberculosis is a social disease and requires the operation of social forces for its prevention. Its ravages are so great that the campaign against it makes a particularly strong dramatic appeal. This campaign must be kept up if the disease is finally to be brought under control.

Another consideration is that movements for social uplift whether for the prevention of disease or other social purposes will not run themselves after once being started. It takes constant pushing to keep them going. If success is to attend the movement to eradicate tuberculosis attention must be kept focused on the tuberculosis problem for several years to come. Everyone is agreed that the real control of tuberculosis must be exercised by the government, either state, county or municipal. In a democratic form of government governmental acts are brought about only by means of popular education. Continuous and persistent action results from constant pressure of public opinion. The exhibit is one of the most valuable means of keeping up the campaign so as to maintain such pressure.

The third principal leading to a consideration of the present scheme is a psychological one and relates to the mental processes of the visitor who attends the exhibit. The visitor's time is usually limited. Insuch a limited time visitors can get only a few impressions. It is better that they go away with a few clear and definite impressions of one or two health problems than to go away with the impression of the vastness of the field of health work that will appal them and deter them from trying to do something out of a sense of sheer hopelessness. Thus, from the point of view of the visitor it seems more important that an exhibit on a health subject should be intensive rather than extensive, that it should make a few things stand out clearly and distinctly rather than give equal emphasis to many things.

From a consideration of the above principles a rather elaborate scheme of health campaigning has been evolved. The scheme involves the construction of a number of exhibits on important health subjects.

The Tuberculosis Exhibit should be continued and kept up to date.

Infant mortality is so great and the conservation of child life is so important as to warrant an exhibit devoted to child health and welfare.

The question of industrial and occupational diseases is now receiving much attention, as is also the question of safety from accidents. A third exhibit could be constructed around the every-day activities of the people to show them how to avoid accidental injury and injury incidental to occupations.

The conditions of living in the country differ in many respects from conditions in the city. It is impossible to reach all of the rural population with large exhibits which deal with urban conditions to a great extent. A fourth exhibit may well be constructed on the hygiene of country life. Such an exhibit could of smaller bulk and thus be adapted to take in the smaller communities.

Many questions of health and sanitation cannot be elaborated in the special exhibits suggested above. Material dealing with these various questions should be gathered together in a general health exhibit, making a fifth in the series.

It takes four or five years to make a tour of the state with one exhibit. If it were possible to have five exhibits as enumerated above and keep them going, a system could be devised whereby each community of the state could be visited by one of the exhibits each year. With several exhibits in the field a show could be held every year without repetition. Before any one exhibit could get around for a second visit it would have to be reconstructed and that would make a new exhibit of it.

Such a scheme may be thought wholly visionary, yet it is believed that if it could be put into operation the increased efficiency of workers due to better health and the saving incident to the prevention of sickness and death would far more than repay the state for the necessary expenditure. The expense would not be so great as to be prohibitive. The money that New Jersey has appropriated for the Panama Exposition would maintain such an exhibit campaign in the state for a period of four or five years.

It is a long step from such a vision of possibilities down to the work of one exhibit, as it is now being conducted. Unless a greatly increased appropriation is forthcoming the exhibit managment will have to be content with the continuation of the work in its present scope.

OUTBREAK OF ACUTE DIARRHEA DUE TO MILK.

On April 14, 1913, an investigation was begun, at the request of the health officer of the City of Elizabeth, to determine the cause for a sudden, somewhat extensive and unusual outbreak of gastro-intestinal, disturbance among persons residing in said city. The health officer's attention was first called to the prevalence of the sickness on April 23d, by local physicians who sought an explanation for the cause of the illness of so many persons similarly affected during the preceding few days.

As a result of investigations made by the health officer of Elizabeth in over thirty cases occurring in twenty families, milk and water was the only food or drink found to be common to them all. Inasmuch as the cases were located in various parts of the city, and the affected persons bore no social relation one to the other, he concluded that the exciting cause of the sickness must have been due to the use of milk distributed by the same dealer to each of the families in which the affected persons resided. It was, therefore, suggested that an investigation be made at the creamery from which this supply of milk has been received. However, inasmuch as reports were current to the effect that much sickness of the same character was prevalent in Cranford, Roselle and other nearby towns, and further considering the fact that the exact nature of the ailment and its cause had not been definitely determined, further investigation of cases as decided upon before the source of the milk supply should be looked into.

The prosecution of further investigation in the City of Elizabeth was left with the local health officer while work in other localities was conducted by the State Inspector.

THE NATURE OF THE ILLNESS. The sickness was referred to by some physicians as a form of "intestinal grippe" while others, who had treated many cases and closely studied the symptoms, made no definite diagnosis, but unreservedly expressed an opinion that the outbreak owed its origin to some common source. In most cases, the onset was attended with violent headache, pains in the back, legs, (particularly in the joints), a feeling of nausea and, in some cases, vomiting; cramps and tenderness upon pressure in the lower part of the abdomen, frequent stools, offensive in the beginning and containing much mucous after the first few operations, and, in some severe cases, streaked with blood; fluctuating temperature ranging from 98 to 104° within twenty-four hours and prostration out of all proportion to other symptoms. The usual attack extended over a period of from three to four days to a week, except that in a few of the more severe cases brought to our attention lasted from one to three weeks. Even in the milder cases the sufferers, through soon resuming their regular vocations, were slow in regaining their normal health. Widal tests were made of specimens of blood, from a few aggravated cases, with negative results. Owing to the fact that the outbreak had practically terminated by the time this investigation was begun, we were able to procure but one specimen of feces for bacteriological examination. This specimen was from a typical case of some days' duration, but in the absence of further specimens from this or other cases a laboratory diagnosis was impossible. Total absence of cases among infants, and the very small number of reported cases in children under five years of age, presents a striking feature in the outbreak.

THE EXTENT AND DURATION OF THE OUTBREAK. The outbreak was explosive in character, appearing simultaneously in Westfield, Cranfield, Roselle, Roselle Park, Elizabeth and Rahway. It was short in duration, beginning about April 16th, reaching its heighth on the 19th, and terminating (except for a very few cases) about April 25th. Three hundred and seventy-four cases have been considered in this investigation. This number does not represent, by any means, the total number that actually occurred. Owing to the fact that the sickness is not included in the list of reportable diseases, the cases were not officially reported to the various local boards of health in the municipality in which they occurred, thus increasing the liability to error in establishing dates, and particularly so in cases not personally investigated. In communities aside from the City of Elizabeth, however, through the courtesy of medical practitioners consulted, it is believed that practically all cases receiving medical attention were listed, as well as a number of those not seeking medical advice.

Scope of The Investigation. While the cases were not officially nor fully reported to local boards of health, health officers, in the localities in which cases are known to have occurred were called upon and furnished helpful assistance. But as the only reliable means of procuring information upon which a working basis might be established, each physician residing in Westfield, Cranford, Roselle and Roselle Park was personally interviewed by State representatives and these practitioners heartily co-operated in the work by furnishing the names, addresses, approximate dates of attack and ages of the persons whom they had treated for intestinal disturbances of the character marked in this epidemic. Note was also made of the names and addresses of persons who were reported through other channels as having suffered from the sickness under investigation. In Elizabeth and Rahway the local health officers gathered this data in their respective localities.

As a rapid means of further strengthening or removing the suspicion at first directed toward the milk supply, as a result of early investigations made in Elizabeth, the physicians' list of names of patients was checked against the names and addresses of customers appearing on the delivery route books of the milk company whose supply had been brought into question. In all cases in which it appeared that milk was not supplied by this company personal investigations were made at the home of the patient. Careful inquiries were also made in cases about which some particular interest centered, although they were positively shown to have been among the regular customers of this company.

An investigation was also conducted at the creamery from which this supply of milk was obtained. Other foods and water supplies were inquired into. Efforts were made to procure specimens for laboratory examinations, and inquiries were conducted in a number of municipalities adjoining those in which the suspected milk supply entered to learn if dysentery or diarrheal sickness had been unusually prevalent therein.

RESULTS OF INVESTIGATION OF CASES. A total of 374 cases was included in the tabulations which accompany and form a part of this report. The names and addresses of the milk dealers doing business in the towns involved, and the names and addresses of persons affected, together with the names of physicians and others furnishing information appear in these tabulations. For convenience, and to avoid repetition, symbols have been substituted for personal names in the body of this report.

TABLE I.

DISTRIBUTION OF CASES.

Town	*Population*	*No. of cases.*	*No. of Homes in which cases occurred.*
Elizabeth	73,409	80	50
Roselle and Roselle Park	5,863	118	74
Cranford	3,641	102	67
Westfield and Garwood	7,538	50	35
Rahway	9,337	24	16
	99,788	374	242

No cases of illness investigated in adjoining communities from which rumors of like sickness reached the investigators, but in which the suspected milk supply did not enter, were found to present clinical symptoms identical with those characterizing this outbreak.

Onset. For obvious reasons it has not been possible to obtain accurate information as to the date of onset in a sufficiently large number of cases to determine beyond doubt the exact day on which the first case occurred, or on which the outbreak assumed its greatest proportions. This, of course, holds true in regard to its termination. However, from the following Tables II and III, which are self-explanatory, it appears that the outbreak proper began on about April 16th, reached its heighth between the 18th and 22d, and terminated on the 26th. There is a history of three cases in one family (Personally investigated) in which the date of onset is claimed to have been on April 9th. These were followed by a fourth case on the 20th. The statement concerning these dates was not verified and a rather meagre description of the symptons was obtained.

There were two cases personally investigated in which the dates of attack are said to have been about April 28th, and one case on May 5th. They were secondary cases in the same families, making it necessary to consider transmission by contact.

TABLE II.

Dates of onset of personally investigated cases.

Dates of Attack.	*Cases.*	*Dates of Attack.*	*Cases.*
April 9	3	April 22	5
April 10	0	April 23	3
April 11	0	April 24	2
April 12	1	April 25	3
April 13	0	April 26	1
April 14	0	April 27	0
April 15	0	April 28	2
April 16	1	April 29	0
April 17	1	May 1	0
April 18	7	May 5	1
April 19	9		
April 20	7		
April 21	7	Total	53

TABLE III.

Dates of onset given by physicians but not verified by investigations.

Date of Attack	*Cases.*	*Dates of Attack*	*Cases.*
April 9	0	April 20-23	1
April 10	0	April 21	21
April 11	0	April 21-22	1
April 12	0	April 22	13
April 13	0	April 23	11
April 14	0	April 24	2
April 15	1	April 24-25	2
April 15-27	7	April 25	0
April 16	4	April 26	4
April 17	5	April 27	0
April 17-24	8	April 28	1
April 17-25	65	April 29	0
April 18	21	April 30	1
April 18-21	28	May 1-4	0
April 19	35	May 5	0
April 19-23	11	Date Unknown	52
April 20	27	Total	321

In looking for a vehicle by which the causative agent of the sickness might have been transmitted, some one article of food or drink was sought coming from a common source that had been distributed in considerable quantities in each of the chain of the somewhat separated towns in which cases occurred. On the first day of the investigation it was established that milk had been distributed by one company in each of these towns in question. Upon first inquiry, information concerning the water supply was somewhat conflicting, but aside from these two mediums, (milk and water) through which substances capable of causing intestinal disturbances are known to be conveyed, suspicion was directed to no other cause.

It appears from the following date, obtained from the files in the Division of Sewerage and Water Supplies of the State Board of Health, that water from no one source of supply is distributed in all of the municipalities in which cases of the sickness occurred. On the other hand, water from the same source is distributed in some towns in which there were cases and in others that were entirely free from the sickness. Therefore, water was excluded as a possible cause.

An entirely different picture is presented when the milk supply that entered the homes in which cases are known to have occurred is studied. Out of 374 cases tabulated, 340 occurred in houses regularly supplied by one dealer, as shown in Table IV.

TABLE IV.

Regular	Dealer	A,	Cases	340.
"	"	B,	"	2
"	"	C,	"	6
"	"	D,	"	2
"	"	E,	"	3
"	"	F,	"	5
"	"	G,	"	2
"	"	H,	"	1
"	"	I,	"	1
"	"	?	"	8
"	"	None.	"	4
				374

Table IV is susceptable to correction in that milk from the supply of Dealer A was used on occasions immediately preceding the dates of attack by some patrons of the other dealers referred to therein. The result of this correction is shown in Table V.

TABLE V.

Regular	Dealer	A,	Cases	340	
Occasionally	"	A,	"	20	
Probably	"	A,	"	1	
					361
Regular	Dealer	B,	Cases	2	
"	"	C,	"	0	
"	"	D,	"	0	
"	"	E,	"	2	
"	"	F,	"	4	
"	"	G,	"	1	
"	"	H,	"	0	
"	"	I,	"	1	
"	"	?,	"	1	
"	"	None.	"	2	13
			Total		374

It may be argued, and it is doubtless true, that some reported cases admitted among regular customers of Dealer A were not true cases. It is likewise probably true that some cases placed among regular patrons of the other dealers may have been included as the result of mistakes in diagnosis. It must be remember that it has been necessary for diagnostic purposes to rely solely on clinical symptoms, and in the personally investigated cases none were excluded from the tabulations unless they gave histories clearly placing them beyond the line of demarkation. However, such errors cannot be numerous enough to in any appreciable way alter the deductions that may be drawn from the rather voluminous data gather in this investigation. Excluding the cases in which diagnosis was extremely doubtful, but that were included in the tabulation, a still further correction may be made in the foregoing tables with the results shown in Table VI.

TABLE VI.

Regular	**Dealer**	**A,**	**Cases**	**337**	
Occasionally	**"**	**A,**	**"**	**15**	
Probably	**"**	**A,**	**"**	**1**	
					353
Regular	**Dealer**	**B,**	**Cases**	**0**	
"	**"**	**C,**	**"**	**0**	
"	**"**	**D,**	**"**	**0**	
"	**"**	**E,**	**"**	**2**	
"	**"**	**F,**	**"**	**2**	
"	**"**	**G,**	**"**	**1**	
"	**"**	**H,**	**"**	**0**	
"	**"**	**I,**	**"**	**1**	
"	**"**	**?,**	**"**	**1**	
"	**"**	**None.**	**"**	**2**	**9**
			Total		**362**

There were 41 cases of illness investigated that were not included in the tabulation, owing to the absence of clinical symptoms that were manifest in typical cases. These cases were located; in Elizabeth, 1; Roselle and Roselle Park, 11; Cranford, 7; Westfield, 19, and Rahway, 3.

While it has not been possible, in the absence of personal investigation in each individual case, to present tables showing exact ages of those affected, yet the data procured on this point is worthy of note in that it shows how uniformly infants escaped the sickness and the high immunity apparently possessed by children under five years of age. The data gathered on this point in the personally investigated cases fully confirms the figures shown in the general findings. A striking verification of this feature of the outbreak was shown in an investigation conducted in an orphan asylum in which there were 55 inmates, whose ages ranged from 4 to 14 years (with an average of about 8 years) and seven officials, all adults. Among the seven adults there were five cases, while among the 55 children but seven are known to have been affected. The ages of the children that were affected are: two, 7 years; one, 8 years; two, 9 years; one, 11 years, and one, 12 years. The milk consumed in this asylum was procured from Dealer A. exclusively. One 40-quart can was delivered to the institution daily and one pint of raw milk was allowed each child at both the morning and evening meals.

A closer view of the relation which the cases bore to the milk supply may be had by a study of the conditions presented in separate towns, for it is doubtless true that more complete information has been obtained in some than in others. Data is therefore given bearing on the outbreak under the heading of the municipalities in which it was gathered.

WESTFIELD AND GARWOOD. The combined population of Westfield and Garwood is about 7,538, among which a history of 50 cases was obtained. There are 16 milk dealers in these towns distributing about 2,871 quarts daily. Forty-two of the fifty cases occurred among persons residing in homes supplied by Dealer A. who daily distributes about 360 quarts. There were two cases among regular customers of Dealer C, who sells 850 quarts of milk daily, and one of these cases is known to have occasionally taken milk while away from home that was furnished by Dealer A. Dealer D daily distributes 500 quarts of milk, with a history of one case among his regular customers; the date of onset being April 21st or 22d and the patient had taken cream furnished by Dealer A on April 20th. One case was among regular customers of Dealer E, but the person in whom it occurred was not interviewed to learn if he had used milk from another source. Four cases were not placed among the regular patrons of any dealer, but two of them were in one family that purchased milk from Dealer A on April 6th and 22d, the dates of onset occurring on April 22d. Other dealers, collectively distributing more than 1,000 quarts of milk daily, had no cases credited to families in which their supplies entered. According to the above data it appears that there were but two cases not known to have been regular or occasional users of milk or milk products supplied by Dealer A, and in one of these cases no information concerning the milk supply was procurable.

The following table shows the distribution of cases among milk dealers in Westfield and Garwood.

TABLE VII.

Population.	
Westfield	6,420
Garwood	1,118
Total	7,538

Milk Distributors.			*Amt. of Daily Sales.*		*No. of cases among regular customers.*
1.	Dealer	A	360	Quarts	42
2.	"	B	25	"	0
3.	"	C	850	"	2†
4.	"	D	500	"	1‡
5.	"	E	150	"	1§
6.	"	..	200	"	0
7.	"	..	30	"	0
8.	"	..	200	"	0
9.	"	..	15	"	0
10.	"	..	6	"	0
11.	"	..	240	"	0
12.	"	..	60	"	0
13.	"	..	50	"	0
14.	"	..	30	"	0
15.	"	..	125	"	0
16.	"	..	30	"	0
			2871	"	46
			Cases for which regular fluid milk supply is not known		4¶
			Total		50

†One occasionally used milk furnished by Dealer A while away from home.

‡Used cream from Dealer A on April 20th.

§Not seen to learn if milk was used away from home.

¶One family, three cases, purchased milk from Dealer A on April 6th and 22d, (Dealer A.'s books) One purchased milk from Dealer A on April 14th and 16th, (Dealer A.'s books).

CRANFORD. In Cranford, with a population of about 3,641, there were 102 cases tabulated, all but one of these were in houses to which Dealer A regularly supplied milk, and this single exception occurred in an individual who occasionally took milk furnished by Dealer A while away from home.

The distribution of cases among milk dealers in Cranford is shown in the following table:

TABLE VIII.

Population 3,641.

Milk Distributors.			*Amt. of Daily Sales.*		*No. of cases among regular customers*
1.	Dealer	A	330	Quarts	101
2.	"	B	250	"	1*
3.	"	..	75	"	0
4.	"	..	125	"	0
5.	"	..	92	"	0
6.	"	..	600	"	0
			Total....1472	"	Total....102

* Also regularly supplied by Dealer No. 6; occasionally used milk from Dealer A's supply with meals taken away from home.

ROSELLE AND ROSELLE PARK. Out of an approximate population of 5,863 persons a history of 118 cases was procured. Ninety-eight were among customers of Dealer A, while seventeen were distributed (in the proportions shown in Table IX) among the regular patrons of five of the six other dealers in these towns, and in three cases the regular supply of fluid milk was not learned. After correcting the data by including among those regularly using milk from Dealer A, eight cases that were shown to have used milk or cream from this supply on specific occasions, and excluding from this list one in which there was doubt about the source of milk drunk less than twenty-four hours before sickness, and six that were not consulted concerning the question as to whether or not they had previously used milk from Dealer A, there remain five cases not included in this supply. The fact that there was a higher number of cases in the Roselle than in other towns that were not included among the regular patrons of Dealer A may be due to the location of the distributing station for this supply in that town, thus making it comparatively easy for those not regular daily customers to go to the depot for milk or cream on extra occasions.

Table showing distribution of cases among milk dealers in Roselle and Roselle Park.

TABLE IX.

Population.	
Roselle........	2,725
Roselle Pk.....	3,138
	5,863

	Milk Distributors.	*Amt. of Daily Sales.*		*No. of cases among regular customers*
1.	Dealer A	700	Quarts	98
2.	" B	200	"	4*
3.	" ..	225	"	3¶
4.	" G	350	"	6‡
5.	" H	80	"	2
6.	" ..	150	"	0
7.	Miscellaneous	200	"	2‖
			"	
	Total....	1905	"	115
	Cases for which regular fluid milk supply is not known......			3†
	Total...........			118

*Four cases in one house in which only condensed milk was used. Three cases not seen tolearn if milk was used away from home.

¶One drank milk at Inn bar on April 22d. Source questionable. One Three cases not seen to learn if milk was used away from home.

‡Four frequently took cream procured from Dealer A,—One—cream from Dealer A on April 12th; also occasionally bought milk from substation., One also used extra milk presumed by the patient to be from Dealer A's supply.

‖Both cases said to have used milk from Dealer A on April 16th.

†One purchased fluid milk at Dealer A's depot in Roselle. One not seen to learn if milk was used away from home.

RAHWAY. The estimated population of Rahway is 9,337 and a history of twenty-four cases was procured. Twenty were known to have been among regular patrons of Dealer A, one is said to have drunk buttermilk furnished by this dealer; two are indirectly reported to be regular or occasional patrons, and one, in which the date of onset is given as April 22d, used either fluid milk or condensed milk procured on April 21st from this supply.

TABLE X.

Population.. 9,337

Milk Distributors.	*Amt. of Daily Sales.*	*No. of cases among regular customers*
1. Dealer A	200 Quarts	20
2. " ..	190 "	0
3. " ..	180 "	0
4. " ..	40 "	0
5. " ..	35 "	0
6. " ..	45 "	0
7. " ..	280 "	0
8. " ..	140 "	0
9. " ..	550 "	0
10. " ..	180 "	0
11. " ..	90 "	0
12. " ..	190 "	0
	"	
	Total....2120 "	20
	Cases for which regular fluid milk supply is not known......	3†
	Cases which had no regular fluid milk supply............	1*
	Total............	24

†One said to have drunk buttermilk supplied by Dealer A and two cases in one house stated by neighbor to have been supplied by Dealer A.

*Used either fluid or condensed milk on April 21st from Dealer A.

ELIZABETH. The estimated population of Elizabeth is 73,409 and the health officer reports a total of eighty cases; seventy-nine of them being among regular patrons of Dealer A and one in which the regular source of milk supply is not given, but this patient is said to have used milk supplied by Dealer A while at the home of a relative. There being but one case recorded among the patrons of other dealers the number of dealers and the aggregate amount of milk they are accredited with supplying is grouped in the following table relating to the milk supply in Elizabeth.

TABLE XI.

Milk Distributors.	*Amt. of Daily Sales.*	*No. of cases among regular customers*
Dealer A	2500 Quarts	79
61 other dealers	16628 "	1
	Total....19128 "	80

Considering the fact that about thirty per cent. of the total amount of milk daily distributed by Dealer A is sold in the City of Elizabeth, the proportion of cases to the amount of milk distributed therein is not in keeping with the numbers recorded in the other towns. This apparent discrepancy is explained by the health officer's statement. "The list furnished on April 30th of eighty (80) cases was all that had been reported by physicians in this city in response to a personal telephonic appeal. In addition to these some physicians reported that they had cases but did not co-operate to the extent of sending the names or addresses."

THE SOURCE OF THE MILK SUPPLIED BY DEALER A: The depot from which 3,800 quartes of fluid milk, 250 quart bottles of buttermilk and about 500 half-pint bottles of cream were daily distributed, is located at Roselle. This entire amount of milk and milk products is said to have been received from one of the company's creameries, located at Newark Valley in the State of New York. These products were all bottled at the creamery and are mostly distributed direct to consumers from the car in which they were freighted to Roselle, except that one sealed forty-quart can was received each day for use in the orphan asylum to which allusion has been made. Therefore, it is not likely that contamination of the milk took place at the distributing station. There was daily received at the creamery in Newark Valley an average of 12,000 quarts of milk from about 117 dairies contributing to the supply.

Aside from the daily shipments to Roselle, the records at the creamery show shipments of fluid milk to New York City on dates and in amounts as follows:

April	5	Raw	Milk	360	quarts
"	11	"	"	2200	"
"	12	"	"	2400	"
"	19	"	"	2400	"

April 20	Bottled under supervision of Rabbi	1200	quarts
" 21		1200	"
" 22		1200	"
" 23		288	"
" 24		2400	"
" 25		1836	"
" 26		1476	"
" 27		2400	"
" 28		2400	"
" 29	(Pasteurized)	6000	"

Just preceding and during the heighth of the prevalence of the epidemic no shipments of fluid milk were made to places other than Roselle.

From April 1st to the 28th, inclusive, daily shipments of about 650 quarts of cream were made to New York City, and an average of 180 half-pint bottles of cream and 180 quart bottles of buttermilk were sent to Plainfield, N. J.

Shipments of fluid milk were discontinued to Roselle on April 23d, the day preceding that on which this inquiry began, except that 288 quart bottles, prepared for special trade, were sent to Roselle on April 24th, and again on the 25th. All shipments from the creamery were temporarily discontinued on April 29th.

As the result of an interview with representatives of the department of health of New York City on April 26th an investigation was made by them in the district in said city in which the milk shipped from the Newark Valley creamery is said to have been distributed, but with negative results. When considering the fact that cases were still appearing in the New Jersey towns for some days subsequent to April 19th upon which a shipment of fluid milk was made to New York City, it would naturally seem that cases would have occurred among the users of this milk, providing, of course, that the onset of sickness followed soon after ingestion of the milk. Information (not, however, accurate beyond a possible doubt) obtained from some investigated cases in New Jersey tends to show that the onset of their illness occurred within from four to twenty-four hours after partaking freely of the milk. If this be true, and if the irritant causing the sickness was contained in the milk, it must have been introduced just prior to April 16th and continued in the milk until about April 23d or 24th. There would, therefore, have been several days' shipment of fluid milk (prepared for special trade) from the Newark Valley creamery to New York City on days upon which the use of milk from the same source was apparently causing illness among some of those using it in New Jersey. Whether or not this "special" milk was heated or otherwise treated by the consumers before use, so as to destroy any harmful ingredient it may have contained, is not known.

It can be seen how the buttermilk, made from fresh separated milk to which a "starter" had been added and the mass allowed to ripen at a temperature of 70° F. for a period of twenty hours before churning, as was the custom at the creamery, may have been innocuous, even though the whole milk from which it had been made contained harmful substances. The cream that went to Plainfield, being distributed in small packages, and probably mostly used for coffee or other hot drinks, may have caused sickness and yet not in a sufficient number of cases to attract particular attention. We have no knowledge of what use was made of the cream shipped to New York City.

Investigations were made at the source of the milk supply, on May 3d and 4th, that included a careful study of the methods practiced in handling the milk at the creamery, from the time it was received until bottled and packed for shipment. Eight of the one hundred and seventeen or more dairies contributing to the supply were inspected and physicial examinations made of the cows. Several rumored cases of sickness in the village in which the creamery is located were carefully inquired into. The dairies inspected were singled out for investigation as a result of information gathered at the creamery and from local physicians.

There had been two cases of diarrhea or dysentery in persons employed at the creamery, one of whom was taken ill on the 22d and the other on the 23d of April. These dates of onset preclude the possibility of the outbreak having had its origin from contamination of the milk by either of these cases. A history was procured of two cases that occurred on one of the dairy farms inspected and that supplied about 160 quarts of milk a day to the Newark Valley creamery. What appears to be accurate information places the dates of attack for these two cases on April 9th and 16th, respectively. The patients were father and son, the former being the first to suffer. Both men kept cows, in the same dairy barn, and they lived in the same house but provided separate tables. The attacks were not described as severe, yet a physician was called in each case, and the patients state that during the acute stages of their sickness there were frequent bowel movements, six or more times a day, lasting for a period of from three to four days. In the case of the older patient, recovery was probably slow, for it was stated that the son, who attended and milked all of the cows during his father's illness, was still doing so, one week later, when his own attack occurred, and that he continued to do so throughout his entire illness. The conditions of cleanliness on the dairy in question were utterly bad. The wife and infant child of the younger dairy man are said to have remained perfectly well during and after the time the other occupants of the dwelling were ill.

The facilities for handling the milk after it is received at the creamery may be stated as exceptionally good, yet not safeguarding it beyond the possibility of contamination or accidental infection under conditions that might arise among the twenty odd employees engaged in the work. However, it is the belief that whatever may have happened to the milk that caused sickness among those later consuming it is much more likely to have taken place on some one of the dairies that contributed to the supply than to have occurred at the creamery. Without entering into detail, it may be stated that the method of mixing the milk at the creamery was such that one day's output of contaminated milk from a single dairy was likely to have been more or less mixed through the entire batch constituting the day's receipts and should a dairy have continued to deliver such milk for two or three days in succession, mixing would undoubtedly have occurred to an extent assuring distribution of the contaminated milk over the entire route of which the supply entered, the cream as well as the skimmed milk from which buttermilk was made, would naturally have contained due proportion of whatever impurities were in the milk of which they had formed a part, but the process of ripening the buttermilk might have counteracted any harmful substance it may have contained.

CONCLUSIONS.

1. The regularity with which the cases occurred among persons residing in families regularly supplied with fluid milk shipped from a certain creamery in Newark Valley, or in those who had used milk from this supply, just previous to their illness, leaves no reasonable doubt but what the outbreak was due to the use of this milk.

2. The investigation failed to show what had been added to the milk to cause the sickness or to definitely determine the origin.

3. While the outbreak was apparently subsiding at the time the investigation was begun, on April 24th, it is not possible to positively determine whether the irritant had entirely disappeared from the milk by that time, or whether the termination of the outbreak was the result of eliminating the suspected milk on the following day.

AN UNUSUAL HISTORY OF TYPHOID FEVER CASES TRACED TO A SINGLE FAMILY.

On November 6, 1912 an inspector was sent to Keyport in response to the request of a local physician that an investigation be made for the purpose of tracing the source of infection responsible for numerous cases of typhoid fever apparently connected with a certain farm located in Raritan township, Monmouth County. The physician had treated many cases of typhoid fever, during the preceding fifteen years, in members of the farmer's family and other persons intimately associated therewith, and the source of the infection for these cases had never been definitely determined. After obtaining what information the physician had to offer the farm in question was visited and the following history was procured.

The dwelling and farm building are desirably located on ground gradually sloping to a small stream which flows through a prosperous farming district. The farm is devoted principally to raising truck and small fruits.

During the summer of 1896 the farmer, his wife, three sons, two daughters and several employees resided on the place. The eldest son, then 16 years of age, left home to accept employment in a store in South River, and after an absence of several weeks he returned ill with what proved to be typhoid fever. There was no previous history of typhoid fever in this family nor on the farm.

Within the next few weeks the boy's father, then about 43 years old; his sister, then 6 years of age, and several employees on the place contracted the disease. After the son's recovery, he again left home and has not since that time resided on the farm. Subsequent to this original case, the well that had previously furnished water for potable purposes was filled up, as the result of a chemical analysis, and a new one was dug. Still other cases of typhoid fever continued to occur, from year to year, in persons residing at or working on the farm, with the result that further improvements were made in and about the house and buildings; and eventually a third well was procured far remote from any apparent sources of pollution. These changes were followed with additional cases of typhoid fever and during the summer of 1903 another son, then 19 years of age, suffered an attack of the disease. During the fall of 1908 this son was married and brought his wife to occupy a newly constructed dwelling on another portion of the farm, and in July, 1910, she contracted typhoid fever. In September, 1912, their three-year-old son fell a victim to the disease.

Covering a period of sixteen years, dating from the original case brought to the farm during the summer of 1896, to the date of occurrence of the last case above referred to, 18 cases of typhoid fever are known to have occurred in persons who had either resided on the farm in question or who were closely associated with those who did.

Of the persons included among those in whom the above cases occurred there remained resident on the farm, at the time this inquiry began, the father and two daughters, (living in the homestead) and the son together with his wife and child, occupying the house constructed in the year 1908. Two of the six persons named suffered from typhoid fever in 1895, one in 1903, one in 1910, one in 1912, and the sixth at some period of time during these years, the exact date not being definitely ascertained.

From the history procured there appeared no reason to suspect the water supply now in use in either of the two dwellings, nor to believe that other structural conditions about the well-kept buildings and farm have been responsible for continuing the infection. On the other hand, it seemed more probable that some one of the persons who had suffered an attack of typhoid fever during the year 1896 had become a chronic "carrier" and, as such, the source of infection of the subsequent cases.

As a preliminary step toward locating such a possible "carrier," specimens of blood for Widal reaction were taken from the following persons:

	Age	*Had Typhoid Fever.*	*Date Specimen Was Taken.*	*Result of Examination.*
Father	59	Aug. 1896	Nov. 6, 1912	Positive.
Daughter	22	Sept. 1896	" " "	Positive.
Son	28	July 1903	" " "	Negative.
Son's Wife	27	June 1910	" " "	Positive.

Assuming that a positive blood reaction means that the body of the individual from whom it is taken then or has recently harbored the typhoid bacilli, the results above shown are rather remarkable, in as much as they indicate three typhoid "carrier" cases out of four persons whose blood was tested; two sixteen and one two years after recovery from an attack of the disease. It therefore appeared that at least two persons residing in the homestead on the farm had been constant or intermittent sources of infection for a period of sixteen years past, and that one "carrier" has existed in the new dwelling for more than two years past. It is quite probable that another daughter in the family, who gives a past history of malarial fever, but whose blood was not tested, may also have suffered from typhoid fever. The natural inference deduced from the data in hand up to this time was that the son's wife, who had typhoid fever in June 1910, contracted the disease from a "carrier" case in the home of her father-in-law, where she frequently ate food, and that she subsequently infected her own child, who was ill with the disease during the month of September, 1912.

The results and significance of the blood examination were explained to the persons from whom the specimens had been taken and the desirability of continuing the investigation, by the examination of specimens of feces and urine, was pointed out. It was also explained that these examinations would be made by the State Board of Health without expense to the families concerned. The essential precautionary measures that typhoid "carriers" should observe were carefully gone over in detail, and the dire results that might follow disregard of scruplous personal cleanliness and the safe disposal of all excretions from such individuals was particularly dwelt upon.

While the members of the affected family were naturally much disturbed by the realization of their predicament and somewhat dismayed at the prospect that several of them might continue, for an indefinite period, to be sources of typhoid infection, the offer of assistance in carrying the inquiry to a satisfactory termination was rejected and no further specimens were furnished, nor did the persons whose blood gave a typhoid reaction seek remedial treatment.

Attention was next called to this family on April 14, 1913, while investigating a small but explosive outbreak of typhoid fever in the Borough of Keyport. In seven cases of the disease, occurring in six houses, the dates of onset were found to have been about April 1st. As a result of a careful study of the individual cases, suspicion fell upon milk that had been supplied by a small local dealer. It appeared from the epidemiological study of this outbreak that the dealer distributed about 60 quarts of milk a day to a small number of families residing in the Borough of Keyport. Of this amount the dealer produced about 15 quarts daily and purchased from four nearby farms various amounts sufficient to meet his daily sales. No recent nor remote typhoid history was associated with any of the dairies then contributing to the supply. In checking up the dates to learn when the dealer began to take milk from each of these four farms, it appeared that one had been taken on about March 15. 1913, and a former contributor (of from 5 to 8 quarts a day) had been dropped on March 20th. The discontinued supply prove to have been obtained from the farm about which typhoid infection has centered for so many years, and upon which the three "carrier" cases referred to above were located.

According to information procured, the farmer and his son each kept one cow to supply milk for their respective families, and when the supply exceeds the amount required for home consumption the excess was disposed of to the milk distributor above referred to who had been taking this excess milk for sale in Keyport since going into business about one year before. Both cows were stabled in the barn at the homestead and had been milked and cared for by the son prior to his departure with his family from the State on March 5, 1913.

Following the son's removal from the "typhoid-carrier farm" a hired man did the milking until the cow that had belonged to the son was sold, on or about March 20th, after which time the local dealer procured no more milk from this farm. On two or three occasions, just prior to the sale of this cow and some time between March 15th and 20th, the farmer, whose blood had given an absolute typhoid reaction, did the milking in order that the hired man should not be put to the inconvenience of coming from his home, a mile or more distant, for this express purpose on these particular occasions. It was some time between March 15th and 20th that infection for the cases of typhoid fever that occurred in Keyport took place.

For obvious reasons, it was not possible to definitely prove how and where the milk distributed by the dealer became infected, but the strong presumptive evidence is that it was the result of the infected farmer's obliging act in milking the cows on two or three occasions at about the time the infection occurred. Justification for this assumption is to be found:

1. In that no typhoid history was revealed on the milk dealer's farm nor among any of those contributing to this supply except the one referred to above.

2. During the period of time that the son, (whose blood did not give a Widal reaction) did the milking no infection of the milk appears to have occurred.

3. The hired man, who usually did the milking on the infected farm after the son's departure, had for years kept and milked several cows at his own home, and personally distributed milk to consumers, among whom no cases of typhoid fever occurred.

4. The farmer, whose blood gave an absolute typhoid reaction milked the cows on one or two occasions about the time that persons using this milk in the Borough of Keyport became infected.

The dealer who distributed the infected milk retired from the business as soon as it was shown that he had presumably, yet unknowingly, played a part in the spread of infection that resulted in ten cases of typhoid fever and two deaths, while the original source of infection that caused the outbreak evidently remains as potent a factor of danger as at any previous time.

EXTENSIVE OUTBREAK OF TYPHOID FEVER DUE TO THE USE OF INFECTED WELL WATER.

On October 31, 1912, an investigation was begun of an outbreak of typhoid fever among the employees of the John A. Roebling Sons' Co. Iron Works at Roebling. Upon arrival at that place it was learned that about twenty-five cases of typhoid fever had been reported to the local board of health during the preceding week and that a number of suspicious cases, in which a positive diagnosis had not yet been made, were then under observation. The source of infection causing the outbreak had not been definitely determined, but as a precautionary measure close attention had been given by the company to the filtration and hypochlorite of lime treatment of the town water supply, and an order was issued, on October 28, discontinuing the practice of bringing water into the mills from a nearby well and a spring, to be used for drinking purposes.

From a study of the cases thus far reported it was noted that the patients were all men who worked in some one of the various buildings within the enclosure surrounding the works, no women or children being affected. It was further noted that only persons working in certain buildings had contracted the disease, thereby suggesting the existence of some common source of infection confined to particular groups of employees.

Upon this theory the town water supply, milk and other food supply in general use throughout the town were excluded, and it hardly seemed possible that the infection causing so explosive an outbreak could have been spread by flies having access to fecal matter contained in several open privy vaults on the grounds, nor that the disease had spread by personal contact. The histories of subsequent cases reported from day to day confirmed the first conclusions that whatever the vehicle of transmission the infection was confined within sharply defined lines.

With this knowledge to work upon, a careful investigation was made of the habits of the men employed in the various groups of workers among whom cases had occurred, as well as in the various buildings in which these men were employed or frequented.

It was noted that no provisions had been made for drawing water from the town supply in the buildings in which the infected individuals had worked but that water for drinking purposes had been carried to these buildings in open pails. There were three sources from which this water had been procured, viz., from taps on the town supply in other parts of the works, from a spring on the hillside at a considerable distance from the works, and from a well more conveniently located on an adjoining property.

It appeared that a higher percentage of cases had occurred among groups of workers who were most frequently supplied with water from this well.

Samples of water were collected from both the well and spring above referred to and forwarded to the State Laboratory of Hygiene for examination. As indicated by the location and surroundings of the well it was found that the water was grossly polluted, while in as far as appeared from an examination of the surroundings of the spring and a chemical analysis of the spring water it appeared to be a safe water for potable uses.

Of the seventy-one cases that occurred before this outbreak terminated sixty-three were men actively engaged in the Roebling Works. In the eight cases occurring in persons not thus employed six were children and two were women. Three of the children are known to have drunk water from the infected well and three are presumed to have done so from the fact that they are known to have played in and around the yard in which the well was located. One of the two women who contracted the disease was a secondary case that occurred in a house in which a mill worker was previously sick with typhoid fever, thus affording an opportunity for contact infection, and the other woman is said to have drunk water from the infected well.

The total number of persons employed in or procuring drinking water from the buildings in which polluted well water had been used was slightly less than one-third of the entire force employed in the plant, yet all of the employees affected were from among the men employed in these buildings, and the percentage of cases was proportionately higher among persons working in buildings most frequently supplied with well water.

Some indication of the infectivity of the well water, or of the per cent of susceptible persons among those who drank it, may be gathered from the following table:

Building.	*Number of Employees.*	*Number of Cases.*	*Incident of case to Number of employees in building.*
A*	54	1	1 in 54.0
B	107	14	1 in 7.6
C	105	11	1 in 9.5
Yard	200	21	1 in 9 5
Floating Gangs	79	14	1 in 5.7
	545	61	

*Well water supplied in mill "A" only on one or two occasions.

Excluding those in mill "A," there were about four hundred and ninety-one employees who frequently drank water from the infected well, and among these men there were sixty cases of typhoid fever, an incident of one case in every 8.2 persons. There were four deaths reported, a fatality rate of 7.04%.

The well in question was a dug well, about fifteen feet deep, that contained, at the time of inspection, about three feet of water. The well was located beneath the floor of a shed attached to the rear of one of four two-family frame dwellings known, locally, as "Knickerbocker Row." The buildings are located on property adjoining the John A. Roeblings Sons' Works and separated from it only by the tracks of the Pennsylvania Railroad. Each dwelling has a separate well, similar in construction and location with respect to the building to which it belongs as the one responsible for this outbreak. In the yard in which the infected well was located there was a large privy vault, forty feet distant from the well, and an unclean hog-pen located a few feet beyond. The ground immediately surrounding the well was grossly polluted, and waste liquids that were discharged from a wooden box-drain flowed through a gully in the surface of the ground that extended from the border of the well to and connected with a wooden box-drain through which the fluids were conveyed into a tributary of the Delaware River. Open seams in the board floor covering the well permitted polluting material from the unclean floor to fall directly into the well.

The occupants of the dwelling were foreigners, from whom little dependable information was obtained. A sick child who was found in the house was seen by a physician during the first week in November and a clinical diagnosis of typhoid fever was then made and later verified by a blood examination.

A history was also obtained of a preceding case of illness in the person of a girl residing in the same house who was said to have suffered from headache and fever that kept her from school from October 16th to November 4th, a period of about three weeks. This girl is said to have been prescribed for by a physician in Trenton from whom no definite information concerning the nature of her illness could be obtained. Objections on the part of the patient and her parents defeated efforts to procure specimens of feces or blood for bacteriological examination.

The occupants of "Knickerbocker Row," like many of the workers in the Roebling wire mills, frequently change their place of abode, and, being foreigners, are unfamiliar with our language and customs. They are suspicious and uncommunicative when questioned concerning matters closely relating to their personal affairs, thus making it extremely difficult to successfully conduct an inquiry designed to detect the existence of an earlier case that may have been on the premises.

An attempt to isolate typhoid bacilli from the first sample of water collected from the well on October 31st was unsuccessful, but this was accomplished from a sample collected eight days later, and in about two weeks from the date (October 28) on which water from the well was barred from use in the mills the outbreak abruptly terminated.

On November 15th at a meeting of the local board of health of Florence township a representative of the State Board of Health urged the necessity of permanently closing the infected well which was eventually done.

During a previous investigation of typhoid fever in Roebling the local board of health of Florence Township was then advised by the State inspector to close the polluted wells on properties in "Knickerbocker Row," not because they were shown or suspected to have caused the sickness at that time, but because of their liability to do so. Had this advice been followed the sickness and deaths caused by this later outbreak would have been averted.

SMALL-POX.

An unusual number of cases of small-pox occurred within the State during the year. All were of the non-virulent type of the disease that never or seldom has a fatal termination. There were four separate outbreaks springing from different sources of infection introduced from without the State. These outbreaks occurred in Stockton Boro., Hunterdon County; in Rockaway Boro., Morris County; in Buena Vista Twp., Atlantic County; in Phillipsburg, Warren County; and in Cranbury Twp., Middlesex County.

The only extensive spread of the infection was from the outbreak that occurred in Middlesex County. An error in making a diagnosis in the first cases that occurred in Cranbury resulted in the spread of infection to Monmouth County where the same errors were repeated until the disease became wide-spread and the infection so firmly intrenched that it has not yet been entirely eradicated after a lapse of many months. This is largely due to the extreme mildness of the symptons produced in those who contracted the disease. The general practitioner seldom meets with small-pox in his usual practice, many of them have never seen this mild type of the disease and are very naturally led into the error of mistaking small-pox for chicken-pox, with the result that infection may become wide-spread in a community before the local health authorities are advised of the true nature of the disease with which they have to deal.

Frequently in these mild cases the affected person feels quite well after the prodromal symptoms have passed and the eruption is well marked. The mildness of these attacks leads the patient to doubt that he is really affected with small-pox and to strenuously object to the rigid quarantine restrictions necessary to prevent the spread of infection. The ever increasing number of anti-vaccinationists refer to the mildness of the symptoms produced by this non-virulent type of small-pox in arguments to support their expressed belief that the results of vaccination are far more dangerous than an attack of the disease.

Still another and probably the most potent factor in perpetuating the infection has been the occurrence of cases in families in which no medical aid was sought, the affected persons relying on home treatment and failing to recognize the nature of the disease from which they were suffering. This has occurred in no inconsiderable number of families and thus the infection has been passed along.

The history of the outbreak that started in Cranbury Township, Monmouth County, and that has been so far reaching in its effect, is shown from the following extracts taken from the report of the investigation of the outbreak.

On December 31, 1912 an inspector was sent to Jamesburg at the request of a local physician to investigate a case of eruptive fever in the person of an employee in a laundry. The patient, a man thirty-nine years of age, was taken ill on December 25th, 1912, presumably with an attack of grippe. Three days later—December 28th, 1912—an eruption appeared on the patient's face, hands, feet and body, which the attending physician believed to be small-pox and the patient and his family were isolated pending the arrival of a representative from the State Board of Health.

The patient stated that he was unsuccessfully vaccinated when a child and that he had never had chicken-pox. His wife and three children had never been vaccinated. The youngest child twelve years of age, had chicken-pox about six years previously.

In the laundry in which the patient worked were two employees, brothers, who are said to have been at work while broken out with an eruption thought to have been chicken pox. The dates of attack in these cases were said to have occurred about November 5th and 25th, 1912, respectively. The brothers reside in Freehold and travel to and from work on the trains of the Pennsylvania Railroad. The cases were attended by different physicians and were both diagnosed as chicken-pox, notwithstanding the fact that both men had previously suffered from this disease.

As a result of the history obtained in Jamesburg an inquiry was instituted in Freehold, where it was shown that cases of so-called chicken-pox had been treated by various physicians in the town of Freehold and the surrounding districts for a period of more than two months preceding. Many persons who had suffered from attacks of the disease had recovered and were to be seen walking about the streets and in public places, their faces and hands covered with pit-marks, and in some instances, others from whom the scabs had not yet fallen.

The officials of the local boards of health of the town of Freehold and Freehold township were seen and urged to institute an investigation to definitely determine the nature of the disease then prevalent in the community and to take active measures against its spread. However, no action was taken in either sanitary districts until six days later—January 6th, 1913, when the board of health of the town of Freehold employed Dr. John Taylor, of Asbury Park, to establish a diagnosis. Although Dr. Taylor pronounced the disease small-pox, disbelief was still expressed by many laymen and by one or two physicians. This led the town of Freehold to employ Dr. William H. Welch, of philadelphia, who unqualifiedly confirmed the diagnosis of small-pox made by Dr. Taylor.

At a meeting of the local board of health of the town of Freehold, held on the evening of January 6th, a resolution was offered and passed providing for free vaccination and an agreement was reached that all persons known to be affected with small-pox should be quarantined ,and that terminal disinfection should be performed in all such cases.

Investigations were then made to learn to what extent the disease was prevalent in other communities in Monmouth County.

These inquiries showed that the disease had been prevalent for several months; particularly in Woodsville, Manalapan and Freehold and that the infection had extended to Jamesburg, Asbury Park, Cream Ridge and to several families residing in Freehold Township.

A number of persons known to have exposure to the disease in and about Freehold were traced to various places throughout the State and the local authorities of such places were notified.

In so far as shown by the investigation, physicians in attendance upon the cases in all the above named places, except Jamesburg and Asbury Park, were misled by the mild type of the disease into the belief that the cases were chicken-pox, notwithstanding consultations were held in many cases because of the severity of the prodromal symptoms and of the eruption that followed.

It is a rather remarkable fact that not a single case of chicken-pox had been reported by the various physicians who have seen and treated these cases, although they were pronounced chicken-pox and chicken-pox has long been a reportable disease Had the cases been reported and the information been transmitted to the State Board of Health in the regular way there can be no doubt that an inquiry would have been instituted that would have resulted in discovering the true nature of the disease in the beginning of the outbreak and thereby have prevented the wide-spread infection that followed.

In tracing the infection back to its original source cases were investigated in Jamesburg, the Town of Freehold, Freehold Township, Borough of Englishtown, Upper Freehold Township, Manalapan Township and Cranbury Township. These investigations led into thirty-seven homes in which there were one hundred and ninety-two persons among whom ninety-nine cases of the disease occurred. The vaccinal record obtained of the individuals comprising these thirty-seven families shows how uniformally recently successfully vaccinated persons escaped the infection and how unerringly the unvaccinated were singled out for attack, irrespective as to whether or not they had previously had chicken-pox.

Before the first investigation was finally closed one hundred and thirty-seven cases had been studied, of this number fifty-six were males and fifty-seven were females. The ages of the patients ranged from infants to persons over seventy-five years old, and 82% of the cases were in adults. Of the one hundred and thirty-three cases only ten or 7.7% gave histories of ever having been vaccinated. The most recently vaccinated persons to contract the disease was one case giving a history of a vaccination performed eight years previously, the date being fixed from memory and not official records. The next shortest time between vaccination and the time of contracting the disease was nineteen years and the greatest length of time elapsing between vaccination and the date of attack being forty-nine years.

The following paragraphs from the inspector's report of the investigation of the outbreak shows to what source the infection was traced.

"On or about April 12, 1912, Mr. W. J. C. employed through the Southern Employment Agency of Philadelphia, a colored man to work on his farm in Cranbury Township. About one week after coming to the farm the colored man was taken ill and went to a drug store in Cranbury for medicine. Within the next few days an eruption appeared on the patient's face and hands that excited comments from those with whom he worked.

About two weeks following this occurrence the eldest son of the farmer who had worked in the field with the colored man referred to felt slightly ill, and was obliged to discontinue work for a short time. Within the next few days profuse eruptions occurred on the face and hands of this patient. Other cases followed in Mr. C's. family until eight children, whose ages ranged from three to nineteen years, suffered from the disease.

The physician who was called to see these cases was held by their unusual appearance to call another physician in consultation. While the type of eruption and the symptoms accompanying the attacks were unusual for chicken-pox a diagnosis of this disease was made, notwithstanding the fact that five of the eight children are said to have previously suffered from chicken-pox and none of them had ever been vaccinated. The four adult members of Mr. C's, family, all of whom had previously been vaccinated did not contract the disease.

During the time the cases in Mr. C's. family were broken out they were visited by relatives and friends who carried the infection to their homes in adjoining towns and other municipalities, to which cases have since been traced."

SPECIAL INVESTIGATIONS.

The number of special investigations made by the Division increases from year to year. This is evidently due to increasing interest on the part of the public in matters that directly affect the public health, offend the senses, or cause bodily or mental discomfort.

A growing number of requests are received direct from citizens of the State asking the aid of the State Board of Health in securing the abatement of nuisances that should be attended to by local boards, and not infrequently complaints are made that local boards are lax or entirely inactive in the abatement of nuisances and the enforcement of isolation in cases of dangerous communicable diseases. In so far as the force at our disposal will permit, attention is given to such of these requests as seem to have a bearing on the health of persons residing within the influence of the particular nuisance or condition complained of.

A report on an investigation of a nuisance caused by smoke and gases is of such interest that it is presented. Following this report a table is given showing the special investigations conducted by the bureau during the year.

ANNOYING GASES EMANATED FROM CHEMICAL WORKS ALONG THE HUDSON RIVER.

On August 6, 1913, an investigation was made of complaints arising from annoying and harmful gases discharged into the air from the works operated by the General Chemical Co., and the Barrett Manufacturing Co., at Shadyside, in the Borough of Edgewater, Bergen County.

The works referred to are situated on ground lying along the river front at the foot of the Palisades. The General Chemical Co. manufactures sulphuric, muriatic, nitric and ascetic acids in large quantities, employing about five hundred persons at this plant. The Barrett Manufacturing Co. are refiners of coal tar and ammonia. Other large industries included among the group of factories located at this point are the Pyle's Pearline Factory, Spence-Kellogg Co., refiners of linseed oil and the Duryea Starch Factory. The terminus of one of the coal carrying branches of the Erie Railroad is also located here.

While the characteristic odors incident to the manufacture of the various products turned out by the General Chemical Co. are present in and about each of the separate buildings in which these products are manufactured, it is doubtless the fumes escaping from the sulphuric acid plant that are most tenacious, far reaching and chiefly responsible for the complaints from persons residing within the distance over which the fumes extend. This distance varies considerably depending upon the state of the atmosphere and movement of air currents.

On the day the inspection was made the atmosphere was clear and dry with a fresh northeast wind blowing, a state of weather under which odors were rapidly dissipated. The presence of sulphuric acid gas in the air could be detected on the hillside a few hundred yards or so from the plant, and within a hundred feet or so from the building in which sulphuric acid is produced the air was charged with the gas to an extent that proved irritating to mucous membrane of the respiratory passages and caused coughing in the case of the inspector, but apparently had no effect on the workmen about the premises who are more accustomed to breathe the gas-laden air.

Barring a few dwellings located on the lowlands near the plants referred to, the nearest residences are those situated on the highlands known as the Palisades and somewhat back from the crest of the hill. The odor of the gases from the plant doutbless reaches these dwellings on the Palisades under certain atmospheric conditions, but they were not present to an appreciable degree on the day of this inspection.

The General Superintendent of the General Chemical Co.'s works informed the inspector that the invasion of a section of New York City around Riverside Drive and 116th Street by sulphuric gas on the evening of July 19th, was due to an accident that occurred on the premises of the General Chemical Co. at that time. The superintendent asserts that the electric machinery controlling the pumping device operated in connection with the sulphuric acid plant broke down on that occasion and thereby permitted the fumes to escape into the air for a period of about five minutes before the break was discovered and the plant closed down. During this brief period of time the entire product of the plant, producing about two hundred tons of sulphuric acid a day, escaped into the outer air, and a light south wind and moisture-laden atmosphere prevailing at that time carried the gases across the Hudson River into New York City. It is claimed by the superintendent that further mechanical devices have been installed that are designed to guard against the reoccurrence of an interruption in the continuous working of the plant and the nuisance which might result therefrom.

On the Barrett Manufacturing Co.'s plant the characteristic odors of coal tar and its by-products predominated, but there was nothing apparent at the time of the inspection indicating that gases or odors escape from the premises in sufficient volume to be harmful or even annoying at any considerable distance from the plant. At the General Chemical Co.'s plant, 95% of the coal burned in the power house is said to be anthracite, while at the Barrett Manufacturing Co.'s plant it is claimed that no bituminous coal is used in the power plant.

During the three or four hours' time this inspection was being conducted, no dense smoke was discharged from the stacks of any of the manufacturing plants located at this point, thus indicating the use of anthracite coal and good stoking.

In so far as was apparent at the time of this inspection, the operation of the plants above referred to does not create a nuisance dangerous to the health of persons residing in the vicinity, nor were odors present to an annoying extent at any considerable distance from the works. It does not follow, however, that this holds true at all times and under varying atmospheric conditions. A series of inspections might be necessary to establish the full extent and harmfulness of any nuisance that may at times be created by the operation of the plants referred to.

TABLE SHOWING SANITARY DISTRICTS IN WHICH OUTBREAKS OF CASES OF COMMUNICABLE DISEASES WERE INVESTIGATED DURING THE YEAR ENDING OCTOBER 31, 1913.

Sanitary District.	*County.*	*Date of Investigation.*
	ANTERIOR POLIOMYELITIS.	
Hohokus Twp.	Bergen	Aug. 5, 1913.
Bethlehem Twp.	Hunterdon	Oct. 7, 1913.
	ACUTE DIARRHOEA.	
Cranford Twp.	Union	May 1913.
Elizabeth City	Union	May 1913.
Rahway City	Union	May 1913.
Roselle Boro.	Union	May 1913.
Roselle Park Boro.	Union	May 1913.
Westfield Town	Union	May 1913.
	CHICKEN-POX.	
Englewood City	Bergen	Mar. 5, 1913.
	DIPHTHERIA.	
Middle Twp.	Cape May	Sep. 3, 1913.
Clinton Twp.	Hunterdon	Oct. 4, 1913.
Woodbridge Twp.	Middlesex	Oct. 31, 1913.
Tuckerton Boro.	Ocean	Nov. 16, 1912.

DIPHTHERIA, CONT'D.

Sanitary District.	*County.*	*Date of Investigation.*
Penns Grove Boro.	Salem	Oct. 20, 1913.
Bridgewater Twp.	Somerset	Sep. 4, 1913.
Washington Twp.	Warren	Jun. 30, 1913.

DYSENTERY.

Upper Twp.	Cape May	Aug. 15, 1913.

MALARIA.

Westwood Boro.	Bergen	Aug. 27, 1913.
Pompton Twp.	Passaic	Sep. 17, 1913.

SCARLET FEVER.

Fort Lee Boro.	Bergen	Jan. 27, 1913.
Atlantic Highlands Boro.	Monmouth	Mar. 31, 1913.
Manchester Twp.	Ocean	Mar. 1913.
Island Heights Boro.	Ocean	Aug. 30, 1913.
Salem City	Salem	Jun. 12, 1913.
Rahway City	Union	Jun. 7, 1913.

SMALL-POX.

Stockton Boro.	Hunterdon	May. 27, 1913.
Cranbury Twp.	Middlesex	Jan. 1913.
Jamesburg Boro.	Middlesex	Jan. 1913.
Asbury Park City	Monmouth	Jan. 1913.
Bradley Beach Boro.	Monmouth	Jan. 1913.
Freehold Town	Monmouth	Jan. 1913.
Freehold Township	Monmouth	Jan. 1913.
Highlands Boro.	Monmouth	Jan. 1913.
Keyport Town	Monmouth	Jun. 7, 1913.
Millstone Twp.	Monmouth	Feb. 27, 1913.
Ocean Twp.	Monmouth	Jan. 1913.
Red Bank Boro.	Monmouth	Jan. 1913.
Upper Freehold Twp.	Monmouth	Jan. 1913.
Rockaway Boro.	Morris	Mar. 6, 1913.
Jackson Twp.	Ocean	Jan. 1913.
Buena Vista Twp.	Atlantic	Feb. 14, 1913.
Phillipsburg Town	Warren	Jun. 7, 1913.

TYPHOID FEVER.

Pleasantville Boro.	Atlantic	Dec. 19, 1912.
Hohokus Twp.	Bergen	Nov. 6, 1912.
Saddle River Twp.	Bergen	Aug. 25, 1913.
Union Twp.	Bergen	Oct. 1913.
Florence Twp.	Burlington	Nov. 1912.
Commercial Twp.	Cumberland	Oct. 15, 1913.
Millville City	Cumberland	Sep. 15, 1913.
Bloomfield Town	Essex	Nov. 1, 1912.
Clinton Twp.	Hunterdon	Oct. 3, 1913.
East Amwell Twp.	Hunterdon	Jun. 10, 1913.
High Bridge Boro.	Hunterdon	Dec. 16, 1912.
Raritan Twp.	Hunterdon	Jun. 4, 1913.
Perth Amboy City	Middlesex	Aug. 26, 1913.
Perth Amboy City	Middlesex	Oct. 1913.
Piscataway Twp.	Middlesex	Nov. 8, 1912.

TYPHOID FEVER, CONT'D.

Sanitary District.	*County.*	*Date of Investigation.*
South Brunswick Twp.	Middlesex	Sep. 27, 1913.
South River Boro.	Middlesex	Nov. 1, 1912.
Freehold Town	Monmouth	Dec. 10, 1912.
Freehold Town	Monmouth	Aug. 6, 1913.
Freehold Twp.	Monmouth	Aug. 6, 1913.
Keyport Town	Monmouth	Nov. 6, 1912.
Boonton Town	Morris	Jul. 31, 1913.
Dover Town	Morris	Jul. 31, 1913.
Rockaway Boro.	Morris	Jul. 31, 1913.
Oxford Twp.	Warren	Aug. 6, 1913.

TABLE 1.—SHOWING NUMBER AND LOCATION OF DAIRY PREMISES ON WHICH CONTAGIOUS DISEASES WERE REPORTED AND INVESTIGATED DURING THE YEAR ENDING OCTOBER 31, 1913.

LOCATION OF DAIRIES.		Diphtheria	Scarlet Fever	Typhoid Fever	Tuberculosis	Dysentery	Amount of Milk Produced on Premises Daily.	Place to Which Milk Was Shipped.	Action Taken to Prevent Spread of Infection.
SANITARY DISTRICT.	COUNTY.								
Saddle River Township	Bergen			1			200 qts.	Paterson	Sale of milk prohibited.
Teaneck Township	Bergen				1		150 "	Englewood	
Union Township	Bergen			1			10 "	Kingsland	Left to local board.
New Hanover Township	Burlington		1				40 "	Camden	Isolation.
Southampton Township	Burlington	1					160 "	Camden	Isolation.
Springfield Township	Burlington		1				100 "	Burlington	Sale of milk prohibited.
Delaware Township	Camden			1			10 "	Haddonfield	Sale of milk discontinued.
Stow Creek Township	Cumberland			1			20 "	Bridgeton	Sale of milk discontinued.
Livingston Township	Essex		1				160 "	Roseland	Isolation.
West Orange Town	Essex		1				200 "	Orange and W. Orange	Left to local board.
Deptford Township	Gloucester		1				80 "	Camden	Isolation.
East Amwell Township	Hunterdon		1				50 "	Philadelphia	Isolation.
East Amwell Township	Hunterdon		1				140 "	Philadelphia	Isolation.
East Amwell Township	Hunterdon	1					50 "	Philadelphia	Isolation.
Holland Township	Hunterdon				1		40 "	Milford	Isolation.
Readington Township	Hunterdon				1		40 "	Readington	
Readington Township	Hunterdon				1		40 "	Readington	Isolation.
West Amwell Township	Hunterdon		1				180 "	Lambertville	Isolation.
West Amwell Township	Hunterdon		1				20 "	Lambertville	Sale of milk prohibited.
West Amwell Township	Hunterdon		1				75 "	Philadelphia	Isolation
Ewing Township	Mercer		1				20 "	Philadelphia	Sale of milk prohibited.
Ewing Township	Mercer		1				150 "	Trenton	Isolation.
Lawrence Township	Mercer		1				35 "	Trenton	Sale of milk prohibited.
South Brunswick Township	Middlesex		1				150 "	Princeton	Isolation.
Woodbridge Township	Middlesex		1				400 "	Perth Amboy	Left to local board.
Woodbridge Township	Middlesex	1					110 "	Woodbridge	Sale of milk prohibited.
Butler Borough	Morris		2				215 "	Butler	Isolation.
Roxbury Township	Morris		1				80 "	Dover	Isolation.
Mannington Township	Salem		2				150 "	Sharptown	Isolation.
Mannington Township	Salem		4				140 "	Sharptown	Isolation.
Pilesgrove Township	Salem	1					360 "	Camden	Isolation.
Pilesgrove Township	Salem	1					80 "	Philadelphia	Isolation.
Pilesgrove Township	Salem	1					120 "	Sharptown	Isolation.
Quinton Township	Salem	1					35 "	Salem	Sale of milk discontinued.

Upper Pittsgrove Township	Salem		1				45	"	Elmer	Isolation.
Bedminster Township	Somerset		4				55	"	Bayonne	Isolation.
Montgomery Township	Somerset				1		75	"	Skillman	Isolation.
Hampton Township	Sussex					1	120	"	Branchville	
Newton Township	Sussex			1			160	"	Newton	Isolation.
Vernon Township	Sussex		1				100	"	New York	Isolation.
Franklin Township	Warren		1				70	"	West Portal	Isolation.
Franklin Township	Warren		1				160	"	Easton, Pa.	Isolation.
Greenwich Township	Warren		4				60	"	Bloomsbury	Sale of milk discontinued.
	Totals	7	36	5	5	1	3,655	"		

Report of the Division of Creameries and Dairies.

GEORGE W. MCGUIRE, CHIEF.

To the Board of Health of the State of New Jersey:

GENTLEMEN:—I have the honor to submit herewith a report showing the work of this Division for the year ending October 31, 1913.

In last year's report a plan was outlined whereby the scope of the work could be extended by dividing the territory of the State into four inspection districts and detailing an inspector for each district. This scheme was made possible by the appointment of an additional inspector and was put into execution. The new inspector was given the territory comprising the counties of Atlantic, Cape May, Cumberland, Camden, Gloucester and Salem. The other districts are as follows: First district—Morris, Passaic, Sussex and Warren counties; Second district, Bergen, Essex, Hudson, Somerset and Union counties; Third district, Burlington, Hunterdon, Mercer, Middlesex and Monmouth counties.

The amount of work done by the Division this year shows an increase of 25.3% over 1912. Altogether 5442 inspections were made, as against 4062 last year.

Classified, they are as follows:

Dairy inspections	**3603**
Milk depot inspections	**208**
Creamery inspections	**358**
Ice cream factory inspections	**1273**
Total	**5442**

The following tables will show a comparison of the results obtained in the past two years:

TABLE OF DAIRY INSPECTIONS FOR THE PAST TWO YEARS.

Year.	Total number of dairy inspections.	Per cent. of dairies scoring ABOVE 60%.	Per cent. of dairies scoring BELOW 60%.	Per cent. of dairies in which the production of milk was discontinued.	Per cent. of increase in the number of dairy inspections for the year.
1912	3077	41.5%	56.0%	2.5%	
1913	3603	55.5%	41.7%	2.8%	14.6%

TABLE SHOWING INITIAL INSPECTIONS AND RE-INSPECTIONS OF DAIRIES FOR THE PAST TWO YEARS.

Year.	Number of initial or first inspections.	Per cent. of first inspections.	Number of re-inspections.	Per cent. of re-inspections.
1912	1700	55.0%	1377	45.0%
1913	1291	35.9%	2312	64.1%

INSPECTION OF MILK SHOPS FOR THE PAST TWO YEARS.

Number of milk shop inspections.	1912	1913	Increased percentage of inspection,
	77	208	270.0%.

TABLE OF CREAMERY INSPECTIONS FOR THE PAST TWO YEARS.

Total number of creameries in New Jersey, 192.

Year.	Total number of creamery inspections.	Number of LICENSED creameries.	Per cent. licensed.	Number of UN-LICENSED creameries.	Per cent. un-licensed.	Percentage of increase in the number of creamery inspections for the year.	Number of creamery licenses revoked.
1912	260	143	81.7%	32	18.3%		
1913	358	168	87.5%	24	12.5%	37.7%	13

TABLE OF ICE CREAM FACTORY INSPECTIONS FOR THE PAST TWO YEARS.

Total number of ice cream factories in New Jersey, 583.

Year.	Number of ice cream factory inspections.	Number of LICENSED ice cream factories.	Per cent. licensed.	Number of U N-L I-CENSED ice cream factories.	Per cent. un-licensed.	Percentage of increase in the number of ice cream factory inspections.	Number of ice cream factory licenses revoked.
1912	648	209	45.2%	253	54.8%		
1913	1273	409	70.1%	174	29.9%	96.5%	16

The foregoing tables show the extent of the work of the Division. This development has been necessarily slow on account of the educational features which have been followed in our efforts to improve the hygienic quality of milk and its products. In the past year, however, more progress has been made toward gaining the end sought than in any previous year. This time the Board has taken more drastic action in dealing with delinquents who have been repeatedly notified to improve their methods in handling milk products, and has adopted stronger measures to compel a compliance with its requirements. For several years a policy of moral suasion was followed, and while in some cases it proved effectual, more frequently it failed to better the quality of the milk product offered for sale.

The names of all dealers who fail to carry out the recommendations of the inspector are now reported to the Board weekly, and if the conditions on any of these premises are such as to positively impair the quality of the product there handled, an order is issued by the Board prohibiting its further sale or distribution. In case certain changes or improvements in the dairy or factory are necessary, and it is believed that the proprietor has the ability to make them, he is given a specified time in which to do so, and if he then fails to comply, his milk or his manufactured product is excluded from sale.

Under this plan ninety-eight dealers were ordered last year to cease handling milk or ice cream for public distribution. After fully meeting all the requirements of the Board, fifteen dairymen were reinstated and are now producing milk under favorable conditions, and thirty-five milk dealers relinquished the business altogether, and have turned their attention to other lines of work. Of the forty-five ice cream dealers whose product was prohibited from sale by action of the Board, twelve were reinstated after adopting cleaner methods in their factory work and thirty-three discontinued the business.

In addition to the above, seventy-three dairymen were given a specified time in which to meet the Board's requirements in regard to the better safe-guarding of their milk supply. Fifteen of these disregarded the orders of the Board and were compelled to stop business, and all the others promptly complied. Twenty-five ice cream manufacturers were also given a specified time in which to improve sanitary conditions in their factories.

The result of the year's work in dealing with persons responsible for insanitary conditions on dairy premises and in creameries and ice cream factories may be summarized as follows:

Number of specified time limits given to dairymen to improve conditions	73
Number of dairies prohibited from selling milk	50
Number of dairies reinstated	15
Number of dealers relinquishing the milk business	35
Number of creamery operators given a limited time to improve conditions on their premises	10
Number of creamery cases referred to the Attorney General	3
Number of specified time limits given to manufacturers of ice cream to improve conditions	25
Number of ice cream factories condemned and the manufacture of the product prohibited	45
Number of ice cream factories reinstated	12
Number of ice cream cases referred to the Attorney-General	2

Excellent results have thus far been obtained by the Board's policy in insisting on prompt action on the part of those dealers in milk, ice cream and kindred products who have been officially notified to improve the conditions on their premises. That better results could be obtained, however, under more definite and comprehensive laws is indisputable.

A bill will be prepared for introduction at the coming session of the legislature, which, if it becomes a law, will inform the dealer, in the main, under just what conditions milk must be handled in order that it may be sold. This would not only clarify the situation from the dealer's point of view, but would be of great assistance to the Board in enforcing sanitary conditions in the sale of these food products. For instance, frequent inquiries are received at the office of the State Board of Health for the State's requirements regarding the equipment of creameries and dairy buildings. Since there are no specific requirements in the law regarding dairy equipment, it was necessary for the Board to adopt a code of rules governing the production of milk. Statutory regulations bearing on the hygienic condition of milk such as minimum requirements for light, ventilation and air space of stables, and veterinary examination of animals, would result in more uniformity in dairy operations, and render the labor of the operator less difficult and more satisfactory.

This act should also oblige local boards of health to co-operate with the State Board in the supervision of milk shops located within their jurisdictions. We are constantly receiving complaints of the unsantary conditions obtaining in many places of this character. These requests for assistance are always complied with, and after the investigations have been made, the local health authorities are informed of the results of our inspections, and recommendations are made to them for such action as it is in their power to take. Few of them, however, make any attempt to enforce their ordinances in these matters. In such cases the State Board should have power to compel them to act, and upon their failure to do so, the power of prosecution should be lodged with the State authorities.

All authority for dairy inspection should be lodged with the State Board of Health, which should have complete supervision of this work. Provision should also be made for the State Board to furnish all inspection records to the local health boards, showing the rating of each dairy contributing to the local supply. Local boards should be required to send their dairy inspection reports to the State Board of Health for review. This would end an unnecessary duplication of work and much extra expense. In order to be efficient, dairy inspection should be under disinterested authority, as the greatest benefit which milk producers receive is the confidence of the public which it gives them. A clean bill of health from the State Board of Health enables them to sell their product in any market.

The law should contain a provision that the State, through the Board of Health, shall have complete supervision of dairy conditions, such as cleanliness of dairies and health of their employees, the purity of water supply, the proper cooling and handling of milk, the disposal of waste materials, etc. These provisions would save considerable trouble which is now unavoidable. A number of local boards of health have shown a commendable spirit in their efforts to learn just how milk sold in their districts is handled at the point of production. In many cases, however, the scoring methods of the local officers differ materially from that of the State inspector, which necessarily results in much confusion and engenders a bad feeling on the part of the dairyman. Frequently the activity shown by these boards is spasmodic, and after making one or two inspections, their interest wanes, and the field is left for the State officers to revise what has been improperly done by inexperienced men.

The location of ice cream factories in cellars should be prohibited by law, and it is recommended that the present act be so changed that no person will be priviledged to locate a new establishment underground. Of course a law which would abolish all present cellar factories would be a hardship upon many operators. Some of them have been long established, and the proprietors have gone to considerable expense to meet the structural conditions which the Board has required. Under the strict supervision of this Division, a clean product is manufactured in many factories, but there are others that are so dark, damp, poorly ventilated, plumbed and drained that the food product manufactured therein is subjected to conditions which are anything but ideal. There is a tendency among ice cream manufacturers to use cellars, but their further employment for this purpose should be prohibited.

DAIRIES.

During the past year 3603 dairy farms were inspected, as against 3077 in 1912, an increase of 14.6%. This increase is due to the appointment of an additional inspector, who entered upon his duties November 25, 1912.

The number of local authorities who have applied to the State Board of Health for assistance in the investigation of their milk supplies has increased this year to forty-three, as against thirty-seven last year. We have endeavored to comply with all the requests of these boards, by furnishing records of at least one inspection of the entire supply of each municipality and of such reinspections as they have especially desired.

Several local boards have revised their sanitary codes and have provided for a better control of the dairies from which they draw their supplies. These codes they find impossible to enforce without the co-operation of this Board, and they have in several instances appropriated money for transportation and detailed representatives of their boards to accompany our inspector on his visits to the farms from which they secure their milk supplies. Notable among the above are Trenton, Atlantic City and Long Branch.

TRENTON: The dairies supplying Trenton were inspected first in 1912, and early in 1913, a second score was made of those which were awarded less than 60% on the first inspection. A reinspection of the entire number of dairies supplying Trenton is now in progress. The per cent. of improvement in the sanitary conditions surrounding these dairies is remarkable, and when the reinspection of them is completed, a still greater improvement will undoubtedly be shown.

The following table shows the sanitary condition of these dairies at the end of the fiscal year of 1913:

TABLE SHOWING PER CENT. OF IMPROVEMENT IN DAIRIES SUPPLYING TRENTON WITH MILK.

Number of dairies, 681.

	1912	1913
Poor (scoring below 50%)	27.0%	10.0%
Fair (scoring from 50% to 70%)	70.0%	81.0%
Good (scoring 70% and above)	3.0%	9.0%

ATLANTIC CITY: The first inspection which was ever made of all the dairies contributing to the Atlantic City milk supply took place in 1913. The results obtained from this inspection, as shown in the table below, are about the same as are usually shown in a locality where no systematic inspection has ever been made. A reinspection of all these dairies is now going on, and the indications point to great improvement over the conditions first met with.

CLASSIFICATION OF ATLANTIC CITY SCORES ON FIRST INSPECTION.

Number of dairies, 504.

Poor (scoring below 50%)	28.3%
Fair (scoring from 50% to 70%)	67.4%
Good (scoring 70% and above)	4.3%

LONG BRANCH: The dairies supplying the city of Long Branch with milk were examined for the first time this year. This investigation was brought about through the efforts of the Long Branch Visiting Nurses Association. This association is composed of a number of philanthropic women who solicited the co-operation of the State Board of Health in the inspection of the city's milk supply, and they rendered very valuable assistance in the work throughout the Summer. They also interested themselves in the preparation and enactment of a new ordinance relative to dairy inspection for Long Branch. As a result of the combined efforts of the local and State boards of health and the Visiting Nurses Association, very great improvement has been made in the hygienic condition of the Long Branch milk supply, as the following table will show:

TABLE SHOWING PER CENT. OF IMPROVEMENT IN DAIRIES SUPPLYING LONG BRANCH WITH MILK.

Number of dairies, 53.

	May 1913	Fall of 1913
Poor (scoring below 50%)	22.6%	8.2%
Fair (scoring from 50% to 70%)	66.1%	63.3%
Good (scoring 70% and above)	11.3%	28.5%

The dairies represented in the above three tables were never examined by health authorities prior to 1912. In fact, until this year few of the municipalities south of Trenton have ever had a systematic inspection of dairies, notwithstanding that a large percentage of the milk in the State is produced in this territory. Repeated requests for such an investigation have been made by local health boards and civic organizations interested in the quality of the milk furnished them, but since the force of inspectors was so small, it was impossible for us to do the work. The appointment of the inspector referred to above, enabled us to extend the work to this territory, and the result is shown by the fact that 1291, or 35.9% of the inspections made, were of farms which heretofore had never been visited.

ASBURY PARK: Regular inspections have taken place since 1909 among the dairies supplying Asbury Park, but as the supply of this city is derived from various sources which are constantly changing, it has been difficult to control the commodity. This year, however, the action of the State Board in prohibiting the sale of milk which did not meet its requirements has had a very salutary effect upon the supply.

TABLE SHOWING PER CENT. OF IMPROVEMENT IN DAIRIES SUPPLYING ASBURY PARK WITH MILK.

Number of dairies, 352.

	1909	1913
Poor (scoring below 50%)	14.5%	8.2%
Fair (scoring 50% to 70%)	79.1%	83.8%
Good (scoring 70% and above)	6.4%	8.0%

ATLANTIC HIGHLANDS.

Number of dairies, 15.

	June 1913	Oct. 1913
Poor (scoring below 50%)	40.0%	33.3%
Fair (scoring from 50% to 70%)	40.0%	40.0%
Good (scoring 70% and above)	20.0%	26.7%

BORDENTOWN.

Number of dairies, 24.

	1907	1913
Poor (scoring below 50%)	14.3%	0.0%
Fair (scoring from 50% to 70%)	78.6%	80.0%
Good (scoring 70% and above)	7.1%	20.0%

BURLINGTON.

Number of dairies, 31.

	1909	1913
Poor (scoring below 50%)	26.1%	3.2%
Fair (scoring from 50% to 70%)	69.6%	90.3%
Good (scoring 70% and above)	4.3%	6.5%

COLLINGSWOOD.

Number of dairies, 63.

	1909	1913
Poor (scoring below 50%)	23.8%	0.0%
Fair (scoring from 50% to 70%)	71.4%	93.3%
Good (scoring 70% and above)	4.8%	6.7%

GLOUCESTER CITY.

Number of dairies, 49.

	1912	1913
Poor (scoring below 50%)	30.6%	4.2%
Fair (scoring from 50% to 70%)	61.2%	95.8%
Good (scoring 70% and above)	8.2%	0.0%

HADDONFIELD.

Number of dairies, 18.

	1911	1913
Poor (scoring below 50%)	5.5%	0.0%
Fair (scoring from 50% to 70%)	88.9%	69.2%
Good (scoring 70% and above)	5.6%	30.8%

PERTH AMBOY.

Number of dairies, 311.

	1911	1913
Poor (scoring below 50%)	5.8%	3.7%
Fair (scoring from 50% to 70%)	87.1%	81.7%
Good (scoring 70% and above)	7.1%	14.6%

SALEM.

Number of dairies, 20.

	1911	1913
Poor (scoring below 50%)	4.2%	10.0%(*)
Fair (scoring from 50% to 70%)	95.8%	85.0%
Good (scoring 70% and above)	0.0%	5.0%

WOODBURY.

Number of dairies, 11.

	1912	1913
Poor (scoring below 50%)	36.4%	10.0%
Fair (scoring 50% to 70%)	63.6%	90.0%
Good (scoring 70% and above)	0.0%	0.0%

The foregoing tables show the improved conditions on dairies furnishing milk to South Jersey and sea-coast towns. The minimum requirement in rating dairies on the score-card of the Board is 60%. The classification of "poor" represents the sanitary condition of the dairies when first inspected. Their owners were or will be required to improve their premises and methods so as to reach a higher class, or to discontinue the production of milk altogether. A number of them have already been ordered by the Board to cease the handling of milk for

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(*) The reason for the larger percentage of "poor" dairies in 1913 is due to the fact that several new dairies were taken on, which scored very low.

public distribution, and others have been granted a specified time in which to qualify for a better rating.

The classification of the "fair" dairies represents many that score close to 60%. It would be unjust to the owners to class these among the "poor" dairies, as they have the ability and generally the inclination to put their dairies in a condition to meet the Board's requirements. A reinspection will determine the Board's action in these cases.

Two items on the score-card of the State Board of Health relate to the physical condition of the animals. These particular items total 8 points, viz., 3 points if the physical examination of the cows reveals no apparent disease, and 5 points if they have been tuberculin-tested and all reactors removed. These points are not allowed unless a certificate signed by a veterinarian is furnished by the owner of the dairy. When such a certificate is received, due credit is given on the score-card, and a notification sent to the local board of health of the district in which the milk of the dairy is distributed.

During the past year 420 veterinary certificates have been received, showing the following facts:

Number of herds examined	420
Number of animals examined	8949
Number of animals passing physical examination	8767
Number of animals not passing	182
Number of animals tuberculin tested	2878
Number of animals reacting to the test and removed from herds	149

A number of municipalities have enacted ordinances requiring all cattle producing milk for distribution within their territories to be tuberculin-tested. This will be a difficult regulation to enforce until it is required by all the States, since it is necessary to procure from other States a large portion of the milk consumed in New Jersey. From an economical standpoint, the removal of tuberculous animals from herds is a very important matter to dairymen, but from the standpoint of protecting the public health, it is still more important. The figures in the above table show that only 5% of the 2878 tuberculin-tested cattle were afflicted with tuberculosis. Since, however, veterinary reports concerning these animals were sent voluntarily by the owners, it is quite evident that these figures do not represent the actual percentage of the disease which exists throughout the State.

Prior to this year it was a common practice for dairymen, when cattle from their herds had been tested and condemned, to add new animals without cleaning or disinfecting the quarters of the diseased ones. This matter was brought to the attention of the Board of Health, who arranged with the Commission on Tuberculosis in Animals to withhold the indemnity awarded by the State for condemned animals until a thorough cleaning and disinfection had taken place.

The Board directed the Chief of this Division to formulate a system for requiring the disinfection of all such stables, and accordingly arrangements were made with the Commission on Tuberculosis in Animals to send us the names and addresses of all owners of condemned dairy cattle.

Since June 17th, 1913, we have received notices of the condemnation of diseased cattle, which were housed in 75 stables.

The following table will show where they were located:

County.	*Number of stables.*
Atlantic	2
Bergen	2
Burlington	6
Cape May	1
Essex	1
Hudson	1
Hunterdon	5
Mercer	3
Monmouth	1
Morris	15
Passaic	4
Somerset	1
Sussex	28
Union	1
Warren	4
	75

When we are notified by the Tuberculosis Commission that they have killed certain animals in a herd, a letter, of which the following is a copy, is sent to the owner:

> *Dear Sir:*
>
> Information has been furnished this Board by the Commission on Tuberculosis in Animals that your herd of dairy cattle was recently tested with tuberculin, and that ....animals reacted to the test.
>
> Before a settlement can be made with you by the State, it will be necessary for you to disinfect the stable in which your cows are kept, for the purpose of preventing any further infection in your herd through the medium of germs which may be secreted in or near the stable.
>
> We would recommend the following:
>
> 1. Thoroughly clean the interior surfaces of the stable, and free them from particles of manure, dirt, etc.
> 2. White-wash the walls.
> 3. Disinfect the feeding mangers, watering cups, stanchions, etc. with a solution of crude carbolic acid (about ½ pint of crude carbolic acid to a pail of water).
> 4. Immediately after, scrub the feeding mangers, watering cups, stanchions, etc. with a strong solution of sal soda, preferably hot.
> 5. Remove all manure from the barnyard and spread lime on the surface. If not convenient to remove manure at present, at least spread lime and carbolic in dark places where the sun does not strike.
>
> A representative of this Board will call on——————— to see if the above recommendations have been complied with, and to render you any advice or assistance necessary.
>
> Yours truly,
> Chief of the Division.

After it is thoroughly understood by dairymen that the Board will insist upon disinfection of infected stables, it is confidently believed that the recurrence of the disease in the same stables will be effectively checked.

TABLE SHOWING DAIRY INSPECTION BY COUNTIES.

COUNTY.	Total number of inspections.	Number scoring ABOVE 60% of the perfect mark.	Number scoring BELOW 60% of the perfect mark.	Number relinquishing the sale of milk.
Atlantic	1	1	0	0
Bergen	47	30	14	3
Burlington	201	101	99	1
Camden	77	55	18	4
Cumberland	18	11	7	0
Essex	147	116	25	6
Gloucester	64	31	33	0
Hudson	23	15	8	0
Hunterdon	355	249	103	3
Mercer	307	144	136	27
Middlesex	108	62	43	3
Monmouth	413	187	213	13
Morris	181	153	22	6
Ocean	68	24	44	0
Passaic	48	30	18	0
Salem	624	188	427	9
Somerset	194	114	75	5
Sussex	219	166	49	4
Union	54	48	6	0
Warren	183	107	72	4
Bucks, Pa.	118	51	54	13
Chenango, N. Y.	64	64	0	0
Northampton, Pa.	38	9	29	0
Susquehanna, Pa.	6	6	0	0
Wyoming, Pa.	45	37	8	0
Total	3,603	1,999	1,503	101

TABLE SHOWING THE NUMBER OF DAIRIES SUPPLYING THE FOLLOWING CITIES AND TOWNS, AND THE AVERAGE SCORE ON THE FIRST AND LAST INSPECTIONS.

TOWN.	Number of farms supplying.	Average score (FIRST inspection.)	Average score (LAST inspection.)
Asbury Park	352	57.50%	60.50%
Atlantic City	504	55.25	....
Atlantic Highlands	15	56.00	59.25
Bay Head	13	52.50	52.25
Bayonne	12	64.75	66.75
Belleville	15	69.00	73.50
Bernards Township	9	65.50	70.00
Bordentown	20	56.50	63.25
Bound Brook	17	59.00	60.25
Burlington	31	55.50	62.50
Collingswood	30	56.00	62.00
Dover	45	59.25	71.25
Dunnellen	6	58.25	62.00
East Orange	110	65.50	71.50
Fair Haven	24	65.25	67.25
Gloucester City	24	55.00	59.75
Haddonfield	13	60.25	68.25
Irvington	18	74.75	....
Lawrenceville	5	46.00	66.25
Long Branch	49	57.75	64.00
Lyndhurst	10	58.25	....
Madison	9	71.25	79.50
Metuchen	6	63.00	72.75
Mountain Lakes	3	63.00	....
New Brunswick	120	52.50	65.75
Newton	1	50.00	....
Nutley	5	70.75	....
Orange	218	61.75	73.50
Paterson	39	58.75	66.50
Perth Amboy	311	59.50	62.75
Princeton	41	56.00	66.75
Red Bank	45	60.00	61.75
Ridgewood	9	77.25	....
Roselle	153	59.00	72.25
Salem	20	57.25	59.50
South Orange Township	21	50.50	75.50
South Orange Village	108	63.25	79.50
Summit	21	62.00	78.00
Trenton	532	55.25	60.00
West Hoboken	3	57.00	....
Westwood	6	62.75	71.00
Woodbury	10	52.00	58.50

CREAMERY INSPECTION.

Since the law requires that creameries shall operate only after being licensed by the State Board of Health, they are more easily controlled than dairies, which are not required to be licensed.

Creamerymen as a rule are careful to observe the rules of the Board, and our records for the year show that with few exceptions they have maintained orderly and sanitary establishments. In three instances it was necessary for the Board to order prosecutions against the operators for repeated violations of the law, and in other cases owners were cited to appear to show cause why they should not be prosecuted. In each case the end sought was gained and the milk handled in the creameries subsequently received much better treatment.

There are 192 creameries or receiving stations which are amenable to the requirements of the creamery act, and the number of these establishments is increasing each year. The increase this year was seventeen, there being but 175 at the end of 1912. The system of creamery inspection could be much improved if we could keep one man exclusively employed in visiting these establishments. The demand upon our time for dairy inspection, however, makes this impossible, and the best we can do is to visit each of them at least once a year and make more frequent visits to those where the management has been found to be defective.

The one hundred and ninety-two creameries in the State handle from 500 to 20,000 quarts of milk each per day, and are located in the following counties:

Atlantic	8
Burlington	3
Camden	5
Cumberland	1
Essex	14
Hudson	7
Hunterdon	41
Mercer	9
Middlesex	6
Monmouth	4
Morris	10
Ocean	1
Passaic	10
Salem	12
Somerset	11
Sussex	32
Union	2
Warren	16
Total	192

Pasteurization. There are about fifty pasteurizing machines installed in the licensed creameries of the State, and the tendency is to increase this number. The object of pasteurizing milk is to free it from all disease bearing germs, and in order to accomplish this, the machines used should be so constructed that the milk can be held long enough at a given temperature to destroy these organisms. Many of the machines now in use have no means of regulating the temperature or the length of time to which the fluid is subjected. In order to insure proper work, it is important that all machines be equipped with such devices. The storing of pasteurized milk is also important. It too frequently happens that after pasteurization, milk is set about the floor of the creamery exposed to the air of the place until whatever good the process may have accomplished is undone, and the milk is thus rendered more inferior than before it was treated.

A special permit should be required from the State Board of Health for the operation of these machines, in order that their efficiency may be better controlled. They should all be equipped with charts on which the temperature readings could be automatically recorded. These temperature records would be filed by the operators, and be at the disposal of the Board's officers whenever demanded.

A code of rules covering all the essential requisites in the pasteurization of milk promulgated by the Board, under the authority given them by chapter 139 of the laws of 1906 would undoubtedly improve the quality of the milk now sold as pasteurized milk. These rules should embrace the following points:

Cleanliness, light and ventilation of rooms in which the milk is treated, size and kind of pipes and pumps used for transferring milk from point to point, proper equipment of machines with holding, temperature and cooling devices, exclusion of rubber fittings, storage, etc.

TABLE SHOWING THE NUMBER OF DAIRIES SUPPLYING THE FOLLOWING CREAMERIES AND THE AVERAGE SCORE ON THE FIRST AND LAST INSPECTION.

Location of Creamery.	Name of Operator.	Number of patrons.	Average score (first inspection).	Average score (reinspection).
Andover	Fulboam Dairy	29	62.50%	68.75%
Atlantic City	Abbott Ald. Co.	3	70.25	....
Atlantic City	A. J. Levin	2	59.00	....
Atlantic City	Caleb E. Shreve	8	56.75	....
Atlantic City	J. C. Smith	6	59.50	....
Atlantic City	T. K. Wilson	15	59.50	....
Atlantic City	Supplee Ald. Co	1	65.50	....
Atlantic City	E. F. Price	16	58.25	....
Belvidere	H. R. Hurley	58	54.75	....
Bevans	Seiler Bros	34	61.50	59.50%
Bloomsbury	C. W. Van Natta	30	52.25	59.25
Brisbin, N. Y.	Borden's Condensed Co	64	74.50	81.50
Camden	Garden State Co	18	56.00	64.00
Camden	H. R. Read Co	7	59.75	59.00
Chester	Seiler Bros	9	54.00	65.75
Clinton	James Wyckoff	33	61.50	62.25
Colts Neck	Colts Neck Cream Co	18	50.75	63.25
Daretown	Abbott's Ald. Co.	61	51.25	....
Davis Station	Wills-Jones Co.	32	57.00	60.50
Dryden, N. Y.	Borden's Condensed Co	30	77.00	....
Fallsington, Pa.	C. H. Carver	8	54.00	62.00
Flanders	McLaughlin Estate	15	63.00	70.50
Flanders	Willswood Farms	13	63.75	67.25
Flemington	Seiler Bros	52	53.75	64.00
Franklin Park	S. Adler	12	51.50	56.00
Hamden	J. J. Hummer	3	65.25	....
Hope	H. R. Hurley	68	58.75	61.00
Hopewell	D. Northrup	57	53.75	54.50
Jutland	G. N. Robinson	35	55.75	63.00
Lafayette	Newark Milk and Cream Co.	28	64.00	72.75
Lemon, Pa.	Jersey Milk and Cream Co.	48	55.25	67.00
Little York	York Dairy Co.	30	51.25	56.00
Monroeville	Wilson Dairy Co.	55	55.75	....
Montague	Seiler Brothers	25	59.75	....
Mount Pleasant	York Dairy Co	14	53.75	....
New Brunswick	Hygiene Milk Co.	37	65.50	....
New Egypt	Leo Balzereit	55	56.75	58.75
Newkirk	Abbott's Ald. Co.	11	55.50	....
Newton	Ideal Dairy Co	12	75.75	....
Pattenburg	Geo. Robinson	11	54.25	62.25
Pemberton	Peter Cosgrove	34	55.00	60.00
Quinton	Abbott's Ald. Co.	38	57.00	....
Roseland	Henry Becker	30	58.50	74.50
Salem	Abbott's Ald. Co.	57	50.75	....
Salem	Bridgeton Condensed Co	72	52.00	....
Salem	John Q. Davis	39	51.25	....
Sharptown	Wm. Richman	103	57.25	....
Sparta	Ideal Dairy Co	13	77.50	....
Stanton	B. E. Tine	7	62.00	70.75
Sunnyside	James Wyckoff	41	57.50	62.25
Three Bridges	Amwell Valley Co.	49	57.75	62.25
Trenton	Castanea Dairy Co	62	57.25	63.75
Trenton	Henry Longacre	5	58.00	62.75
Trenton	Snyder Past. Co.	28	58.50	61.25
Trenton	York Dairy Co	8	51.50	61.25
West Portal	C. W. Van Natta	50	52.75	61.75
White House	A. C. Durling	26	55.75	65.00
Woodstown	Supplee's Ald. Co	68	54.25	....

ICE CREAM FACTORY INSPECTION.

The use of ice cream is constantly on the increase, and the number of ice cream factories in the State is considerably augmented each year. At the end of 1912 there were 462 of these establishments located within the State, and at the close of 1913 there were 583.

The extra help provided last year enabled us to supervise the sanitation of ice cream factories more thoroughly than heretofore, as the table printed elsewhere will show.

There are 174 factories in the State still unlicensed. These establishments have been inspected by our officers a number of times, but as they still lack some of the essentials for safeguarding the product, it is not considered advisable to issue licenses to them until all of the Board's requirements have been met. The more vigorous policy adopted by the Board during the past year in dealing with careless manufacturers has brought good results. In carrying out this policy, it became necessary to prohibit the manufacture of ice cream in 45 factories on account of the unsanitary, and in some cases, dangerous methods employed in handling the perishable materials used in the manufacture of the product. This step was not taken until the Board was convinced that the proprietors of these places were incapable of properly safeguarding the delicate food materials held in their charge.

A specified time was given to the owners of twenty-five factories in which to comply with the Board's orders to improve conditions. The desired effect was produced by this means and licenses were issued to the applicants. Previously it had been the aim of the Board to secure proper hygienic conditions in the manufacture of ice cream without recourse to severe measures. They have depended largely upon educational means and the co-operation of the manufacturers themselves in carrying out the law. This year, while not overlooking the educational side, we have found it necessary to adopt more drastic measures to compel the manufacturers to comply with the requirements for proper sanitary conditions, etc., the basic principle of this policy being simply that the establishment which does not turn out a pure product will be closed.

It is our policy always to teach ice cream makers the importance of clean methods in the handling of this delicate product. To this end each manufacturer has been sent a copy of instructions governing the handling of the raw materials and the finished product, and also showing what restrictions are placed upon him in their manipulation. Many manufacturers are making honest efforts to dispense ice cream which has been made under proper conditions, but there are still many others who are indifferent to hygienic requirements, and to this latter class we devote considerable time in our efforts to prevent the sale of a dangerous product. For instance, the instructions referred to above provide that ice cream which has become old and allowed to liquefy shall not be sold for food. In two factories we found such stock which had been returned by the retailer. The wholesaler intended to add this returned stock to fresh materials and dispense it, when our inspector, who happened to be on the premises, made the discovery and promptly destroyed the stale cream. In one case the violation was so flagrant and the proprietor so irresponsible that the Board prohibited him from manufacturing ice cream for sale. Ice cream made under the conditions stated above is not only inferior in quality, but is a dangerous product. It is quite liable to undergo chemical changes in the formation of ptomaines, and thus endanger the lives of the consumers.

Ice cream is either made or handled in many drug stores, and we frequently find very unhygienic practices in the manufacturing room or at the soda fountain where the ice cream is dispensed. The utensils, glasses and dishes in which ice cream is served are often imperfectly washed after using. Heavy syrups and ice cream, unlike ordinary drinkng water, adhere to the surfaces of the containers in which they are placed and cannot be washed off without the use of hot water and soap. It is therefore important that all places where ice cream is dispensed shall be equipped with proper washing facilities and an ample supply of hot water. The law prohibiting the use of the common drinking cups in public places should apply to drug stores, because if there is danger of infection from the use of public drinking cups, those at the soda fountain counters are the greatest menace.

Thirty-seven states in the Union have adopted a fixed standard for ice cream, and several states require that it shall conform to the Federal standard, namely, that the finished product shall contain not less than 14% of butter fat. The fact that there is such a wide variation in the character of the ingredients used in the manufacture of ice cream, all sold under one name, seems to be a strong reason why the State should fix some definite limit to the use of cheaper or inferior substances. The public today is demanding a proper representation of food products, and the persons engaged in the manufacture of a high grade ice cream undoubtedly realize this fact and would welcome a state standard for the product. A large quantity of the ice cream sold in the State is composed of condensed skimmed milk, gelatine and coloring matter, and costs the consumer the same money that he pays for an article made from a twenty per cent. cream without the addition of these cheaper ingredients. This is manifestly a misrepresentation of the poorer product, and is unfair competition, for if the consumer understands that one dealer will give him better value for his money than another, he will naturally patronize the dealer who furnishes the better product. A food standard is fixed not merely upon the purity or harmlessness of the product, but upon a proper representation to the consumer of the nature and quality of the article sold to him. To demand this proper representation of food products is the trend of public sentiment throughout the country to-day, and that a standard for ice cream based upon the percentage of butter fat will eventually be established in this State, there is no doubt.

There is a variance of opinion among the dealers as to what a just standard should be, and many think that there should be no standard at all, but as the consumer is entitled to receive an article which is true to its name, instead of a mixture of cheaper substances sold under a misleading designation, he is the most important factor to be considered.

The Federal government has established the following standard for ice cream, viz: "A frozen product consisting of clean cream, containing 14 per cent. butter fat, and harmless coloring matter." As far as we have been able to learn, it is the concensus of opinion among ice cream makers that this Federal standard is too high, and perhaps it is—but since we believe that some uniform standard should be established, in the interest of the consuming public, there should be some joint action between the manufacturers and the Board of Health, either by public hearings or otherwise, to discuss and consider the subject before a final standard is adopted.

Report of Division of Food, Drugs, Water and Sewerage.

R. B. FITZ-RANDOLPH, CHIEF.

To the Board of Health of the State of New Jersey:

GENTLEMEN:—I herewith present the report of the Division of Food, Drugs, Water and Sewerage for the fiscal year ending October 31, 1913.

This was formed on November 1, 1912, by the consolidation of the former Division of Food and Drugs and Water and Sewerage. The reasons for the change were briefly stated in the report of the Board for 1912. The present Division, for convenience of administration, has been divided into four sections, each of which is engaged in carrying on a particular line of work. These sections are in charge of four assistants, each of whom is responsible for the details of the work under his supervision. The sections are as follows:

SECTION OF BACTERIOLOGICAL DIAGNOSIS: John V. Mulcahy, Chief Bacteriologist, in charge. This section is entrusted with the examination of specimens from suspected cases of communicable diseases; the preparation and distribution of mailing cases for the collection of these specimens; special bacteriological examination of samples of water and sewage, and such special bacteriological investigations as may be needed from time to time.

SECTION OF FOOD AND DRUGS: William G. Tice, Chief Chemist, in charge. This section is concerned with the collection and examination of samples of food and drugs, and the inspection of all places where food or drugs are manufactured, stored or sold. This includes the enforcement of the Food and Drugs Act, the Oleomargarine Law and the Cold Storage, Slaughter House Inspection and Shellfish Acts.

SECTION OF WATER AND SEWAGE INSPECTION: Francis E. Daniels, Director of Water and Sewerage Inspection, in charge. This section inspects water purification and sewage treatment plants for the purpose of supervising their operation, makes inspections of streams to discover and abate pollutions, and collects the samples of water from public supplies which are examined in the laboratory.

SECTION OF ENGINEERING: Chester G. Wigley, Chief Sanitary Engineer, in charge. This section examines and reports on plans submitted to the Board for water purification and sewage treatment plants, and plans for the extensions of existing sewers. It also inspects these works during construction to see that the plans are properly carried out, and does such other work of an engineering nature as may be required.

Detailed statements, showing the work done by each of the above mentioned sections, will be found later in this report. It is purposed here to attempt to show, in a general way. what has been accomplished, and to point out some ways in which the the work of the Division might be improved.

BACTERIOLOGICAL DIAGNOSIS: This was the first laboratory work undertaken by the State Board of Health, the bacteriological laboratory having been established in 1896. An account of the early history of this laboratory will be found in previous reports. Since its establishment, the growth of the laboratory has been rapid and continuous, showing, in the most convincing manner, that the physicians of the state appreciate the facilities which the Board offers them free of cost, in providing methods of diagnosis in communicable diseases which the practitioner cannot use himself. The function of the laboratory is to furnish information to physicians which will enable them to take proper steps to limit the spread of infectious diseases. It has been of great benefit to them and, through them, to the public, in the control of diphtheria, typhoid fever, tuberculosis, malaria and gonorrhoea. It has now reached a point, however, where it is not possible to keep abreast of the times because of insufficient facilities.

During the last few years, great advances have been made in laboratory methods for diagnosing various diseases, and the application of these methods by a public health laboratory increases its sphere of usefulness to a large extent. Up to the present time, for the reasons above stated, we have been able to profit very little by these improved methods, and the usefulness of the laboratory to the practicing physician in this respect has been impaired.

There is a growing demand on the part of physicians throughout the state, as indicated by the number of requests that we receive, for the examiantion of specimens by these modern methods, and it has been a source of regret on the part of those connected with this work that we have been unable, on account of insufficient force and quarters, to comply with their requests. The laboratory should be in a position to enlarge its work by including as a routine porcedure the examination of specimens of blood for syphilis by means of the Wasserman reaction; of blood for typhoid in early and abscure cases by cultural methods, when requested by physicians; of blood for glanders by means of the complement fixation and agglutination tests, and the examination of material from septic infections requiring the use of serums and vaccines.

Some special examinations have been made, consisting principally in the examinations of specimens of feces and urine from suspected carriers of typhoid fever, and from persons employed on dairy premises recovering from this diseases, to determine when they cease to be infectious; the examination of water suspected of causing typhoid fever for the typhoid bacillus, and the isolation and identification of the invading organisms in various pathological conditions. There promises to be a large demand on the public health laboratory, from now on, for this class of work, as the epidemiologist realizes more than ever before the importance of using the laboratory to aid in the detection of infectious persons who show no symptoms of disease, but who have been proved to be responsible, in a large number of instances, for outbreaks of infectious diseases. The extensive use of preventative and curative vaccines creates a demand, on the part of physicians, that the public health laboratory make these vaccines, and also indicate, by the examination of material from the patient the vaccine that is required. The wisdom of state and municipal laboratories engaging in the manufacture of serums and vaccines is debatable, but there can be no question that the examination of specimens for the purpose of indicating treatment is a logical function of these laboratories.

In order that the laboratory may be in a position to meet these added requirements, it is imperatively necessary that more room and more help be provided. During the present fiscal year, there was sufficient appropriation available to enable the Board to employ an additional bacteriologist, but it was impossible to employ one because there was no place where he could work. The room available for bacteriological purposes is now insufficient for the routine examinations now undertaken by the laboratory, and it will be impossible to broaden the scope of the work until at least one more room for this purpose can be secured.

At the present time, the laboratory is located in the State Capitol, which is now overcrowded, and in which no more room is to be had. A building such as this is an undesirable place for a laboratory where infectious material is handled. It is recommended, in view of the fact that more room is also needed for the water and sewage laboratory and for the quarters of the engineering section, that an attempt be made to have a laboratory building constructed outside the present State House. The room now occupied by the laboratory could be used to good advantage for office purposes, and the laboratory, which is of necessity an annoyance to the other occupants of the building, removed to a place where sufficient room could be had, and where its work could be carried on without subjecting other persons to discomfort and danger.

FOOD AND DRUGS: The work of this section of the Division consists in the enforcement of the Food and Drugs Act, (Chapter 217 of the Laws of 1907), and its amendments and supplements, which include the Sanitary Law of 1909; the law relating to the production and distribution of shellfish; the law relating to the distribution and sale of oleomargarine, (Chapter 84 of the Laws of 1886), its amendments and supplements; the Slaughter House Act, (Chapter 295 of the Laws of 1910); the Cold Storage Act, (Chapter 189 of the Laws of 1911), and the Methyl Alcohol Act, (Chapter 286 of the Laws of 1912).

In addition to the above mentioned laws, this section makes analyses of samples of water from public water supplies; samples submitted by local boards of health, and such other samples as are collected by representatives of this Division, the Division of Medical and Sanitary Inspection and the Division of Creameries and Dairies. A considerable number of sewerage samples are examined annually, and, whenever thought desirable, trade waste effluents are tested. The section further renders such assistance as lies within its scope to the sections of Engineering and Water and Sewerage Inspection.

The Food and Drugs Act should be amended so as to include the Shirley Act, recently made a part of the Federal Food Act by Congress. This amendment would provide that:

> **"No package or label shall bear or contain any statement, design or device regarding the curative or therapeutic effect of such article or of any of the ingredients or substances contained therein which is false and fraudulent."**

If adopted, it will prevent the sale of worthless remedies about which exaggerated claims as to their curative powers are made. It would further provide that any article shall be deemed to be misbranded.

> **"If in package form the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and that the State Board of Health shall, by resolution, fix such tolerances and exemptions as to the small packages as shall have been or may hereafter be fixed by the Secretary of the Treasury, the Secretary, of Agriculture and the Secretary of Commerce and Labor of the United States of America, and such tolerances and exemptions shall be published at the end of the session laws of the Legislature next hereafter published after the adoption of said resolution, and such tolerances and exemptions as fixed in said resolution shall take effect when so published; provided, however, that if any such tolerance or exemption so adopted shall be changed by the three secretaries above mentioned. It shall not continue in effect in this state after such change has become effective."**

The enactment of these amendments would also establish further uniformity between the State and Federal Food Laws. Some further legislative action regarding the sale and distribution of habit forming drugs is also desirable.

An amendment of the legal procedure under the Food Law so as to permit the commencement of an action by warrant, would materially strengthen the act. It might also be desirable to provide for the summary arrest without warrant of persons violating the act in the presence of an officer or employee of the State Board of Health.

The present Food Law is so general in its terms as to make it very difficult to regulate the sale of soft drinks, and more specific legislation on this subject is needed. A thorough and complete investigation should also be made of the alcoholic beverage sold in this state. Here, again, the law is so general in its terms as to make it difficult to enforce. Specific legislation and the establishment of standards is needed.

A great deal of adulterated lard is sold for lard, unlabeled in any manner, but because of the peculiar construction of the Food Law, it is difficult to obtain the analytical data necessary to proceed legally. A law should be enacted fixing a standard for lard and defining the various compounds and imitations which are now sold as lard.

The business of breaking and freezing eggs has grown rapidly during the past three years. The eggs so used are those which have been cracked or broken in transit, undersized eggs and in many cases those which have been sorted out by candling and found to be unfit for storage, commonly known to the trade as "rots" and "spots." Good eggs can undoubtedly be broken and frozen and a wholesome product produced. In New Jersey, this business is of such a questionable character that specific legislation should be passed to control it. It is recommended that an act be passed providing that no person shall engage in the business of breaking eggs, except under a permit from the State Board of Health, and fixing a penalty for operating without a permit. It is also recommended that an act be passed requiring the labelling of all "rots" and "spots" so that they can be readily traced, and further, that all eggs intended for tanning purposes be denatured with a suitable substance to prevent their use as food.

Numerous requests are constantly being received from manufacturers and others asking how various preparations should be labeled in order to comply with the law. It is suggested, for the guidance of such persons, that a definition of blend, mixture and compound be read into the law.

It has been shown during the year that the practice of using sodium sulphite in meat and meat products as a coloring and preservative is quite prevalent. Unfortunately, because of the peculiar wording of our present Food Law, it was found exceedingly difficult to prevent this form of adulteration. Specific legislation should, therefore, be enacted regulating the use of coloring materials and preservatives in meat and meat products.

Investigations made by inspectors of this Board have shown that a great many animals which are diseased and unfit for food are slaughtered annually for food purposes. These animals are sold intra-state and consequently do not come within the jurisdiction of the United States Bureau of Animal Industry. Inasmuch as there does not exist any system of meat inspection in this state, the great majority of animals slaughtered receive no inspection whatever. A comprehensive meat inspection law is needed, and legislation along this line should be enacted.

Food laws do not enforce themselves. At present, the Board employs two inspectors who devote their whole time to food and drug inspection; one slaughter house inspector; one cold storage inspector; one shellfish inspector, and one canning inspector who is on duty only during the canning season. This force is entirely inadequate to patrol the state. In fact, if the State Board is to be required to do all the work of enforcing food laws, a very much larger force would be necessary. It is hardly to be expected, however, that the Legislature will provide sufficient funds to enable the Board to do all this work, nor is such a procedure necessary. Much of the work now undone, because the force at the disposal of the Board is too small to do it, should properly be undertaken by local boards of health. It will always be necessary for the State to take the lead in pure food work. In no other way can progress be made, or uniformity of enforcement of law be secured, but a great deal can, and should be done by local boards which is not now done at all. This applies particularly to the carrying on of investigations which involve inspection only; inquiry into conditions of purely local interest, and the collection of samples of foods and drugs, suspected to be held for sale in violation of law, for submission to the State Laboratory for analysis. The ideal arrangement would be to amend the Food Law, making its enforcement mandatory upon local boards of health, and also making some arrangement whereby negligent and inefficient boards could be compelled to do their duty. With such legislation in force, a system of co-operation could readily be established between the State Board and local boards, under which the local boards would do a large proportion of the field work, referring such problems as they were unable to handle to the State Laboratory, which would then act largely in an advisory capacity. Should such an arrangement be brought about, the work of the State Board would become largely educational in character. It would then be advisable to maintain a corps of inspectors who would be essentially teachers, and who would travel from place to place, consulting with local inspectors, instructing them in their duties, assisting them in the solution of difficult problems and keeping them in touch with the work in districts outside their own. Under this arrangement, the laboratory force would probably have to be increased, as large numbers of samples for analysis would be received from local boards. It is not believed that this plan, if properly carried out, would lessen the expenditure which the State now incurs for this work. In all probability, this expenditure would need to be increased somewhat, but there can be no doubt that infinitely more would be accomplished, at a cost which would hardly be felt either by the State or the municipalities, than under the present system. The pure food situation has now reached a stage where it is impossible for any one agency to control it. The Federal Government is doing its part also, but the local boards, and even the purchasing public, must make some effort to meet their responsibilities if much real progress is to be made.

The food laboratory has grown too small to accommodate the work which is now done in it. This results in limiting the scope of the investigations which are carried on, and makes some lines of inquiry impossible. The laboratory is also hampered because, up to the present time, it has not been possible to secure the services of a drug analyst. A great deal of work needs to be done on the drugs offered for sale in this state. Drug analysis is difficult, complicated and time consuming work. At the present time, it is impossible to give this subject the attention it deserves.

WATER AND SEWERAGE INSPECTION: As time goes on, it becomes more and more evident that the water supplies of the state need very careful supervision. This supervision is carried on by the Water and Sewerage Inspection Section. New Jersey is a thickly populated state, especially in the northern part. Much of the water used for potable purposes is taken from surface supplies, and used without filtration. This being the case, it is of the utmost importance to constantly guard against dangerous pollution on the watersheds. The staff of inspectors available for this work is not sufficient to enable an efficient patrol of the sheds to be made, nor should the State be expected to bear the entire expense of this inspection. The cost of patrolling a watershed is just as legitimately a charge on a municipality as is the maintenance of a pumping plant, and cities which use unfiltered water should be required to take this precaution to protect the lives of their inhabitants. The most that this section can do is to make a sanitary inspection of each watershed in the state once a year. This results in the removal of a great many sources of pollution, but it is by no means sufficient. Here, again, there is an opportunity for co-operative work between the State and the municipalities. This is well exemplified in the case of Jersey City, which takes its water from the Rockaway River at Boonton.

This water is normally polluted, and storage and disinfection are relied upon to make it safe. Considerable difficulty has been experienced by Jersey City in her endeavors to keep the watershed as clean as possible, and, during the present year, the municipal authorities requested the Board to make a sanitary survey of the watershed for the purpose of discovering and abating pollutions. An account of this survey will be found later in this report. Largely, on account of the recommendations made by the State Board, the authorities of Jersey City determined to construct a trunk sewer to carry the sewage of Dover, Rockaway and Boonton to a point below the Boonton Dam, and there treat it before it is returned to the river. A competent sanitary engineer has also been employed by Jersey City to make constant inspections of the watershed. This man is working in constant co-operation with this Division, and the results up to the present time, have been most satisfactory. A great deal of similar work needs to be done on the other watersheds in the state, and it is hoped that something in this direction can be accomplished during the coming year.

There are over two hundred public water supplies in the state, and an attempt is made to inspect each one at least once a year. Among these public supplies are a number at which filter plants have been installed, for the purpose of purifying polluted waters. Inasmuch as the safety of a filtered water depends entirely upon the proper operation of the filters, it was deemed wise, at the beginning of the fiscal year, to change the method of inspecting these supplies. The present practice is to send an assistant sanitary engineer to visit each plant at stated intervals; some being visited monthly and others quarterly. He makes a careful inspection of the plant, and collects samples for analysis, beginning the bacteriological tests on the ground. Upon his return, he makes a detailed report on the condition of the plant, noting particularly any defects in its construction and operation. This enables the Division to keep in close touch with the operation of these works, and to advise the municipalities when changes in construction or operation are needed. This system of inspection has developed the fact that a number of the smaller plants are neither satisfactorily constructed nor efficiently operated. It was suggested, at the last session of the Legislature, that it would be wise to require attendants at water filtration and sewage treatment plants to pass an examination, and secure a license from the State Board of Health, before they could be employed. Two bills to this effect were introduced, but neither passed. It is recommended that a similar bill be introduced at the coming session of the Legislature.

The following table shows the filter plants which are inspected monthly:

TOWN	OPERATED BY
Allentown	Municipality
Bridgeton	Municipality
Elizabeth	Elizabethtown Water Company
Millville	Millville Water Company
New Brunswick	Municipality
Rahway	Municipality
Raritan	Somerville Water Company
Roeblin	John A. Roebling's Sons Company
Skillman	State Village
Woodbury	Municipality

and the following are inspected quarterly:

TOWN	OPERATED BY
Burlington	Municipality
Dover	Municipality
Haledon	Municipality
Lambertville	Lambertville Water Company
Long Branch	Tintern Manor Water Company
Midland Park	Bergen Water Company
Moorestown	Moorestown Water Company
Mount Holly	Mount Holly Water Company
Neptune Township	Monmouth County Water Company
Newark	Municipality
Rahway	Middlesex Water Company

In the detailed report of the water supplies after the description of each of the above supplies, will be found a table of the analytical results. In some cases the tables show very strikingly that the operation of the plants to which they refer is variable and uncertain. This is due to either lack of proper equipment or proper management, or both.

Several new supplies for bottled waters have been investigated. Whenever an individual or corporation desires to offer bottled water for sale, an application for permission to sell is made to the Board. A detailed inspection is then made of the sources of supply and methods of handling, and samples of the water are collected and analyzed. All data furnished and acquired are considered, and if satisfactory from a sanitary standpoint, a recommendation is made to the Board that the application be granted. During the year, samples of some of the supplies already on the market have been collected for analysis. On account of lack of time, this work has been somewhat neglected for more important matters.

During the year, four plants for the treatment of water by liquid chlorine have been installed. An account of these will be found in other parts of this report. This method of treatment offers so many advantages over the use of hypochlorite for small installations that it is to be hoped that it will prove efficient. Not sufficient data on these plants has been collected to warrant an expression of opinion as to the efficiency of the process at this time. The Division should be in a position to make tests on such a process as this, but the lack of laboratory space has made such an investigation impossible.

The ground water supplies of the state do not need such close attention as do the surface waters, as they are rarely subject to pollution. The waters of a number of the deep wells furnishing water for municipal supplies contain so much iron as to necessitate the installation of iron removal plants. These need some supervision in order to insure satisfactory operation. Before each new well is put into service, samples of the water are collected and examined, and a careful survey is made of the surroundings.

The law requires that samples for public water supplies must be collected at least four times a year. This places a great deal of work on the inspectors of this section, some of which is unnecessary. There are many public supplies in the state, derived from deep wells, that cannot possibly become polluted, and quarterly analysis of samples from these supplies is a waste of time and money. On the other hand, there are a number of supplies of so questionable a character that daily samples would hardly suffice. It would be of advantage to the Board if the act requiring the collection of these samples could be so modified as to leave the number to be collected annually to the discretion of the Board. The State would be better served if more attention could be paid to some of these supplies, and less to others.

The systematic inspection of the 130 sewage disposal plants. now in operation, has required considerable attention. While there are no two plants exactly alike, there are 21 general types of installations, and comments upon these have been made in former reports. During the year, 384 inspections of sewage disposal plants have been made by this section. As a result of these visits, some plants have been materially improved. In other cases where changes were recommended, financial difficulties have caused such delays in enlargements that serious overloading has resulted.

The supervision of sewage treatment plants by a central authority is even more important than the supervision of water purification works. Most people are alive to the necessity for pure water, and citizens demand that a water supply shall be kept at least reasonably clean. Not so with a sewage treatment plant. Sewage is something to get rid of—to get out of sight and smell as soon as possible. The sewage or sewage effluent from a municipality is rarely a nuisance to that particular municipality, but it may be not only a nuisance, but a menace to the health of a neighboring city. The municipal conscience, however, is notoriously lax when it comes to expending money to protect a neighbor, and therefore, many of our disposal plants, particularly the smaller ones, are neglected in a shameful fashion, because the municipalities which they serve, are not interested enough to provide proper attendance. Constant inspection of the plants by competent engineers seems to be the only way to keep most of them working properly.

In arranging for the periodic inspection of disposal plants, they have been grouped in the order of their importance. Those in the most important group are inspected monthly, others are visited bi-monthly and quarterly, and the least important are inspected at yearly intervals. Whenever complaints are received of faulty operation, immediate inspections are made.

Besides the stream inspections on watersheds, numerous inspections have been made, for the purpose of discovering and abating pollutions which are maintained in violation of law. Many of these inspections are for the purpose of protecting waters in which shellfish grow or are placed. A statement showing the number of these inspections, and the action taken in regard to them, will be found later in this report.

ENGINEERING: The Engineering Section, which was established at the beginning of the present fiscal year, is engaged in a very important work. Sewage treatment plants and water purification plants are being built in large numbers in this state, and before such works can be constructed, the plans must be approved by the State Board of Health. The Engineering Section is entrusted with the duty of determining whether the plans submitted are suitable, and calculated to produce the results desired. To properly pass upon proposed works of this character, the construction of which involves the expenditure of large sums every year, requires a high degree of engineering knowledge, and familiarity with conditions throughout the state. At the present time, the force, consisting of but two men, is too small to properly perform the work which should be required of them. In addition to the examination of plans, an attempt is made to make frequent enough inspections of works under construction to make sure that plants are constructed in accordance with the plans submitted. It has not been possible to make a great many inspections of this character during the year, because of lack of men. It has also been impossible to make certain other investigations, the need for which is pressing. The most important of these is a careful detailed study of the waters of the state, as a preliminary to the preparation of a comprehensive scheme for the disposal of the sewage of our municipalities. There is great need for such a study at the present time. When such a plan for sewage disposal can be prepared, it is altogether likely that the municipalities affected will be guided in the construction of treatment works by the recommendations of the Board, instead of proceeding entirely on their own initiative, as is the practice at present. The lack of such a plan for the protection of our streams has resulted in the past in the construction, by some municipalities, of disposal works which were much more elaborate and expensive that was necessary, and others have built plants which were later found to be so inadequate as to require fundamental changes. The art of sewage treatment is changing at such a rapid rate that it can hardly be expected that plants designed now will be good for all time, but it is believed that much confusion will be avoided, and large sums saved, by the affected municipalities, if this Division can be provided with the necessary facilities to prepare a general scheme for sewage treatment, the carrying out of which by the municipalities, will result in the protection of the streams from objectionable pollution at a reasonable cost. In order to prepare such a plan, however, it will be necessary to gather a great deal of information regarding the flow of streams; the possible future use of some of them as sources of water supply; the flow of tidal waters under various conditions; the location and extent of shellfish grounds, and much other data. It will also be necessary to undertake investigations regarding the disposal of trade wastes, a perplexing problem in this state at present. Provision should also be made for a more active cooperation between the authorities in this state and those of New York, Pennsylvania and Delaware, looking toward the control of pollution of interstate waters.

Aside from the investigations outlined above, there is great need for a comprehensive investigation into the methods of disposing of trade wastes. New Jersey is preeminently a manufacturing state, and its industries are diversified, resulting in the production of trade wastes of the most varied character. The treatment of many of these, at a reasonable cost, presents peculiar difficulties which will require considerable study and much experimental work. This the State will have to do, if the streams are to be properly safeguarded. It is not sufficient to say that trade wastes must be rendered innocuous before they are emptied into a stream. This policy, rigidly insisted upon, in the present state of our knowledge, would drive many industries out of the state. The State should be prepared to indicate how these wastes can best be treated, and until this can be done, a considerable amount of pollution from trade wastes is inevitable.

While the State Board of Health has power to order municipalities to treat the sewage which they empty into streams, it has no power to require the construction of sewers. There are a number of municipalities in the state, which, for their own protection and the safeguarding of their neighbors, need to be either wholly or partly sewered. It is recommended that legislation be enacted, giving the Board power to order the construction of sewers, when, in its judgment, such a procedure is necessary to protect the citizens of the state.

The Engineering Section is badly crippled for lack of room. Quarters should be provided sufficiently large to enable our engineers to carry on their work in comfort, and provision should also be made for at least a beginning of the experimental work outlined above.

Following are the reports of the sections of this Division; a few of the salient features of which have been commented on in the above introduction:

BACTERIOLOGICAL DIAGNOSIS. John V. Mulcahy, Chief Bacteriologist.

The work done in the bacteriological laboratory since its establishment in 1896 is shown in the following table:

TABLE 1.—SHOWING THE NUMBER OF SPECIMENS OF EACH KIND EXAMINED SINCE THE LABORATORY WAS ORGANIZED.

	1896 and 1897	1898	1899	1900	1901	1902	1903	1904
Diphtheria	627	600	577	974	1,864	1,487	2,000	2,949
Tuberculosis	253	516	766	892	1,211	1,467	1,853	2,344
Typhoid fever	27	175	339	431	739	884	1,333	1,272
Malaria		4	*	53	113	196	151	98
Miscellaneous	7	18	*	30	28	55	132	67
Totals	914	1,313	1,682	2,380	3,955	4,060	5,559	6,730

	1905	1906	1907	1908	1909	1910	1911	1912	1913
Diphtheria	2,896	3,277	3,348	6,090	14,688	8,234	4,529	4,856	7,083
Tuberculosis	2,691	2,948	2,402	3,637	4,208	4,520	4,938	5,427	6,136
Typhoid fever	1,263	1,556	1,975	2,543	2,261	3,028	3,342	3,899	3,582
Malaria	109	126	149	178	197	244	320	335	403
Miscellaneous	84	126	119	170	240	398	589	796	1,138
Totals	7,048	8,033	8,993	12,618	21,594	16,424	13,718	15,313	18,342

*The number of these specimens have not been recorded.

With the exception of the diphtheria specimens examined, the number of which varies greatly from year to year, dependent on the prevalence of the disease and the use made of the laboratory by institutions and health authorities for the control of epidemics occurring in institutions and schools by submitting specimens from the throat and nose of every person in these places to weed out carriers of the diphtheria bacillus, the work during the years shows a gratifying increase. This increase does not necessarily indicate a corresponding increase in the number of cases, but rather shows a desire on the part of physicians to have bacteriological diagnoses made in early cases which are only slightly suspicious.

The laboratory is prepared at all times to co-operate with the local health officials, Boards of Education, and heads of institutions in the control of epidemics of diphtheria by providing large numbers of outfits for the collection and transmission of throat and nose specimens from persons exposed to this disease. In this way carrier cases are discovered. They can then be properly cared for until such time as they are found to be no longer a menace to the public.

This is accomplished in two ways; first, by requiring two consecutive negative cultures from the throat or nose, taken on different days, before releasing from quarantine; second, by testing the virulence of the organism when it persists in the throat for any unusual length of time, and when found non-virulent releasing the patient without waiting for two consecutive negatives. We have found this latter method the only practical way to handle cases kept in isolation for extended periods on account the presence of the diphtheria bacillus in the throat or nose, and have found it has been necessary in work on institutions in this State to release carriers by this method. The laboratory will upon request make tests for virulence in cases where the bacilli persist for an unusual length of time after the disappearance of the membrane, or in carrier cases that are not released by two consecutive negatives within a reasonable time.

The following table shows the number and kind of specimens examined during the year, arranged by months:

TABLE 2.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY MONTHS.

MONTHS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
November 1912	942	236	384	50	312	49	21	....	79	13	2,087
December "	507	277	348	51	215	42	19	....	81	10	1,549
January 1913	736	464	481	78	178	47	20	1	75	8	2,088
February "	391	212	438	74	145	28	16	....	69	7	1,380
March "	321	134	542	92	202	23	23	....	75	16	1,428
April "	289	135	524	73	185	30	20	1	89	17	1,363
May "	293	153	566	93	189	22	29	....	79	19	1,448
June "	241	134	429	65	215	29	49	....	68	17	1,247
July "	161	120	405	66	288	36	35	1	83	7	1,202
August "	168	182	377	66	368	48	52	4	90	19	1,374
September "	205	132	373	54	467	69	43	5	94	21	1,463
October "	391	259	423	84	340	55	62	2	86	16	1,718
Totals.	4,645	2,438	5,290	846	3,104	478	389	14	968	170	18,342
Grand totals	7,083		6,136		3,582		403		1,138		18,342

This table shows the largest number of specimens examined in one year with the exception of the year 1909 when the total number of specimens examined was 21,594, of which an unusually large number, 14,688, were diphtheria specimens, as compared with 7,083 diphtheria specimens examined this year. The increase in the number of miscellaneous specimens examined is quite marked, while the number of tuberculosis and malaria specimens show a decided increase.

It is essential, if the physician is to derive the full value of the result of these examinations, that he understand thoroughly the interpretation of these results and combine them with the clinical symptoms to aid him in making a diagnosis. A clinical diagnosis should not be reversed upon a single negative result, a statement to this effect appearing on each negative report.

The interpretation of results is treated in detail under the heading of the various diseases examined for in this laboratory. During the year it has been necessary to report a large number of specimens as unsatisfactory due to the receipt of faulty material and improperly prepared specimens, and in many cases this could be overcome if the physician gave more attention to details given in the directions enclosed in the outfits provided by the laboratory for the collection and transmission of specimens. Suggestions for decreasing the number of these unsatisfactory reports are also given under the heading of various diseases.

DIPHTHERIA.

Specimens from suspected cases of diphtheria are examined twice a day at 8.00 A. M. and at 4.00 P. M. If the specimen reaches the laboratory before 12.00 M. it is planted on blood serum and incubated until 4.00 P. M., at which time those specimens showing the presence of the diphtheria bacillus are reported upon, the others being returned to the incubator. The following morning these specimens together with the ones received up to 7.30 P. M. the preceding evening are examined and reported upon.

A positive result returned on a case clinically diphtheritic is evidence of the disease and the case should be treated accordingly. A positive report returned from a healthy person where no clinical symptoms of diphtheria are present, but who has been exposed recently to the disease, shows that such person should for the purpose of controlling epidemics, be isolated until two negative reports are obtained, or until such time as a test shows the organism to be non-virulent.

Reports on all specimens will be sent by telegram collect, when requested by physicians. It is to be regretted that our appropriation is not large enough to allow us to report positive cases of diphtheria for diagnosis by a prepaid telegram. Ability to do this would make this branch of the work much more valuable as an early report in this disease is of prime importance.

Negative reports from cases clinically diptheritic may be due; first, when the physician in taking the culture fails to touch the infected area, which may occur in cases of very young children, from the difficulty of inserting the swab; second, in laryngeal cases from difficulty in reaching the infected area; third, when the diphtheria bacilli are prevented from developing on culture media by the rapid growth of some other organism. It can readily be seen from this the importance of sending second and in some cases more specimens from suspicious cases before reversing a clinical diagnosis of diphtheria.

Second specimens are also requested when organisms are found that resemble diphtheria bacillus somewhat, but which cannot be positively identified.

Unsatisfactory reports are made when it has not been possible to obtain a growth on the culture media, usually because an antiseptic application has been made shortly before taking the culture, and in cases when the media has been liquified by contaminating bacteria. Swabs made by some physicians from hair pins and match stems wound with cotton, that have not been sterilized, yield a large percentage of results of the latter type.

Physicians are requested to use the outfits provided by the laboratory and to notify us if they have any difficulty in obtaining a supply from the repositories in their vicinity, which are supposed to carry a complete line.

During the year a considerable number of specimens were received at the laboratory without any information to identify the sender, and while we occasionally have inquiries and delayed information sent in regarding a specimen received in this way, a great many are never reported upon. It is advisable, therefore, if a report is not received from a specimen submitted for examination, to communicate with the laboratory and if due to this cause an attempt will be made to identify it.

As already explained tests for virulence will be made upon request.

TUBERCULOSIS.

Tubercle bacilli found in sputum of persons suffering from an affection of the lungs is evidence that the disease is tuberculosis. A single negative result does not mean that the patient is not suffering from tuberculosis, but rather, that in this particular specimen it was not possible to find the bacillus. This may be due; first, to the specimen consisting of saliva instead of pulmonary secretions; second, if but few bacilli are present in the sputum they may not be detected by microscopical examination alone; third, because of the absence of the bacilli from the sputum in early stages of the disease. Repeated examinations sometimes supplemented by animal inoculation are often necessary to demonstrate the presence of the bacillus.

Unsatisfactory reports are made when dried sputum on cotton or paper has been received, or when leaking from the vial has occurred in transit. Physicians should guard against such occurrences and against the use of indiscriminate outfits which are in violation of the postal regulations and expose every person handling them to infection. Directions for collecting and forwarding suspected tubercular material other than sputum can be obtained by communicating with the laboratory.

TYPHOID FEVER.

The examination for typhoid fever is made on the dried blood by means of the Widal Reaction.

While we realize that it is not possible to make such accurate dilutions by this method, as by the method involving the use of liquid serum, its use has been continued because of the difficulty of obtaining satisfactory serum specimens.

Positive results obtained by this method indicate either that the patient is suffering from an infection of the typhoid bacillus or the existence in the past of an infection by this organism. The reaction is also obtained shortly after immunization by typhoid vaccine, and may persist for a long time, as we have found to be the case by tests made on a large number of persons immunized in one of our State institutions. A physician must take these facts into consideration before deciding upon the meaning of the reaction obtained.

A negative result has perhaps less significance than in any other of the diseases the laboratory is called upon to make examinations for as it frequently happens that the reaction is delayed until late in the disease. It also happens that the blood of some patients behaves in an irregular manner, reacting on one day and not on the next. The importance, therefore, of sending several successive specimens from suspected cases is apparent.

An atypical reaction has no value as subsequent specimens may be positive or negative.

MALARIA.

As the method used for the examination depends on staining a thin smear of blood upon a glass slide, it is essential that the physician be careful to prepare a thin even film of blood, which must be allowed to dry in the air without the use of heat, before enclosing it for mailing.

When the parasites are found it is evidence of the disease, but these may be easily overlooked in specimens when they occur in small numbers or when the smear is too thick.

GONORRHOEA.

There has been a decided increase in the number of specimens examined during the year for the presence of the diplococcus causing this disease.

Smears are made on a glass slide from exudates of the urethra, vagina, or other lesions of the genital tract and in some cases from the eye. These are stained and the presence or absence of typical diplococci reported upon.

In chronic cases of gonorrhoea when the pus contains few gonococci it often happens that the gonococcus cannot be found, and in smears made from the vagina when care has not been taken to obtain a fresh specimen, they may be obscured by the presence of other bacteria of the vaginal cavity.

GLANDERS.

The submission of specimens from supsected cases of glanders has not been encouraged in the past because of the inadequate facilities for handling animals which are necessary in this work. We now have a well appointed animal room and are in a position to examine pus and nasal discharges from animals suspected of being infected with the glanders bacillus, and we trust that the veterinarians throughout the State will avail themselves of this aid in making a diagnosis.

Material should be collected with aseptic precautions, placed in a sterile container and sent to the laboratory with as little delay as possible. The outfit provided for the collection of specimens of diphtheria may be used for this purpose.

For the present, because of the force being so small, we will be obliged to confine our examinations to the exudates mentioned above, but we hope to be able soon to include the examination of blood from suspected animals by means of the agglutination and complement fixation tests.

RABIES.

That rabies has been unusually prevalent during the past year is shown by the large number of specimens examined, and the large percentage of these that have been found to be positive. Of 104 specimens fit for examination, 49 or 47.1% were positive. It is fair to assume that the number of cases in the State was far in excess of the laboratory figure as a number of heads are examined in the city laboratory of Newark, and others are sent to laboratories in Philadelphia and New York, while other animals are killed and no laboratory examinations made.

This condition occurring in such a preventable disease where the restrictive methods are so thoroughly understood, indicates negligence and a lack of co-operation in the enforcement of proper restrictions on the part of the local authorities, and emphasizes the need of investing the control of this disease in some central authority so that its spread may be checked.

Animals suspected of having rabies should not be killed, but should be securely confined and kept under observation by a veterinarian. Animals showing the characteristic symptoms, either of the furious or the dumb type, will not live more than a few days if these symptoms are caused by rabies, and an examination of the brain at this time by laboratory methods is much more reliable than in cases of animals killed early in the disease. When it becomes necessary to kill an animal, care should be exercised that the brain is not injured.

The head of the animal to be examined for rabies should be packed in a tight container, preferably a can with a tight cover that can be soldered, surrounded with ice and shipped to the laboratory without delay.

A report of the result of the microscopical examination is sent within twenty-four hours after the receipt of the specimen. A positive report is sent when "Negri bodies" which are specifically associated with the disease are found. These reports are always sent by telegram, prepaid, followed by a letter.

When "Negri bodies" are not found, a report is sent stating this fact, also that this is only presumptive evidence that the dog was not rabid and that it will be necessary to inoculate an animal with a portion of the brain before a final report depending on the inoculation will be made. A suggestion is also incorporated in the report that the Pasteur treatment should not be delayed if there is good reason to believe that the dog was in fact rabid.

Substantially the same report is made in cases where the brain is so badly decomposed that it is not possible to make a satisfactory microscopical examination, but which can be used for animal inoculation.

Great care should be taken that the head reaches the laboratory before decomposition sets in, because if the brain tissue is decomposed it not only prevents the making of an early report by microscopical methods, but sometimes the animal inoculated with this decomposed tissue dies of septicaemia before symptoms of rabies have time to develop, which leaves the question of the dog's condition unanswered.

The following table shows the species of animals and the number examined during the year:

TABLE 3. SHOWS THE NUMBER AND SPECIES OF ANIMALS EXAMINED DURING THE YEAR.

Animal	*Positive*	*Negative*	*Unsatisfactory*	*Total*
Dogs	44	51	4	99
Cats		2		2
Cows	3	2		5
Horse	1			1
Goat	1			1
Totals	49	55	4	108

Table 4 which follows shows the uniform distribution of this disease throughout the State, fifteen counties of the State being affected, which shows the need of concerted action on the part of the local authorities and the necessity for legislative enactment without delay, if this disease which is such a menace to the public and so horrible when contracted, is to be controlled. The inference that might be drawn from this table that rabies did not occur in the six counties not included is not warranted, as cases might and undoubtedly did occur in some or all of these counties, that did not reach the laboratory for reasons already mentioned.

TABLE 4. SHOWS THE TOWNS, ARRANGED BY COUNTIES, FROM WHICH BRAINS FOUND TO BE POSITIVE WERE RECEIVED.

	NO. ANIMALS POSITIVE.
Atlantic County.	
Atlantic City,	1
May's Landing,	1
Scullville,	2
Bergen County.	
Englewood,	1
Hackensack,	1
Midland Park,	1
Burlington County.	
Chester,	1
Moorestown,	1
Pemberton,	2
Roebling,	1
Columbus,	1
Camden County.	
Camden,	2
Merchantville,	1

TABLE 4. (Continued)

	NO. ANIMALS POSITIVE.
Essex County.	
West Orange,	1
Gloucester County.	
Clayton,	1
Mullica Hill,	1
Paulsboro,	1
Mercer County.	
Trenton,	2
Middlesex County.	
Dunellen,	1
New Brunswick,	1
Monmouth County.	
Allenwood,	1
Asbury Park,	1
Freehold,	1
Long Branch,	1
Matawan,	3
Nelsonville,	1
Neptune Twp.	2
Ocean County.	
Lakewood,	4
Passaic County.	
Paterson,	1
Clifton,	1
Salem County.	
Canton,	1
Somerset County.	
Bernardsville,	3
Union County.	
Elizabeth,	1
Plainfield,	1
Roselle Park,	1
Westfield,	2
Total,	49

TABLE 5. SHOWING THE NUMBER AND VARIOUS KINDS OF MISCELLANEOUS SPECIMENS EXAMINED DURING THE YEAR.

Specimen for	*Positive*	*Negative*	*Total*
Gonorrhoea	334	535	869
Rabies	49	59	108
Anthrax	1	7	8
Blood for bacteria		1	1
B. tuberculosis, calf's lung		2	2
B. tuberculosis, cow's pleura	1		1
B. tuberculosis, faeces		3	3
B. tuberculosis, glands of cow	2		2
B. tuberculosis, glands of pig		2	2
B. tuberculosis, milk		1	1
B. tuberculosis, pus	1	3	4

TABLE 5. (Continued)

Specimen for	*Positive*	*Negative*	*Total*
B. tuberculosis, serous fluid		1	1
B. tuberculosis, urine	5	21	26
B. tuberculosis, pleural fluid		4	4
B. typhosus, faeces		8	8
B. typhosus, urine		4	4
B. typhosus, water	1	21	22
B. para-typhosus		8	8
B. Shiga		1	1
B. Pycyaneus	1		1
Faeces for Bacteria	1		1
Glanders, (animals)	1	3	4
Gonorrhoeal Opthalmia	4	13	17
Intestinal tract of a pig for Echinoryhncus gigas	1		1
Pleural fluis, pus	2		2
Pneumococcus	1		1
Pus for Bacteria	15	6	21
Spinal fluid, Meningitis		6	6
Sputum, bacteria	1		1
Sputum, glanders (human being)	1		1
Urine for Bacteria	1	1	2
Urine for Gonococci		2	2
Treponema Pallidum		3	3
Totals	423	715	1,138

This table shows a decided increase in the number of specimens examined for gonorrhoea and rabies over last year and illustrates the kind of special examinations the laboratory is called upon to make. Specimens from any disease of a bacteriological nature will be examined if received in a satisfactory condition. It is interesting to note in this table the examination of a specimen of sputum from a man for glanders which upon injection into the peritoneal cavity of a male guinea pig gave a typical Strauss reaction. The organism isolated from the testicles was morphologically and culturally identical with the Bacillus mallei and was so reported. This case was the subject of further work on the part of investigators in the Research Laboratory of the New York City Department of Health, who obtained a positive test for glanders by the fixation of the complement.

The following table shows the number and kind of specimens examined during the year arranged by towns:

TABLE 6.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY CITIES AND TOWNS.

TOWNS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Absecon					2	1					3
Allendale	3	1	4								8
Allenhurst	1		1	2							4
Allentown	4		3		3				1		11
Allenwood									1		1
Alpha			2								2
Anglesea	1		4		1						6
Arlington	5		46	7	20		17		20	1	116
Asbury			2		1						3
Asbury Park	107	46	55	5	53	13	9		10		298
Atco			1								1
Atlantic City	68	33	83	5	77	10	1		24	1	302
Atlantic Highlands	2		9	1	4						16
Audubon	8	4	1		3	1					17
Barnegat			4	2	1						7
Basking Ridge	4										4
Bay Head	1				1		4				6
Bayonne	43	13	90	18	30	3	5		9		211
Beach Haven			1								1
Beattystown	1										1
Belleville	1	3	14	2	4	1					25
Belmar	9	3	4								16
Belvidere	3		7	1	4						15
Bergenfield	4	1	12	1							18
Berlin	2		5		3						10
Bernardsville	38	20	6	1	4	1	7	1	10		88
Beverly	10	4	8		8						30
Blackwood	1		13	1							15
Blairstown			1								1
Bloomfield	1		13	3	7		1		4		29
Bloomsbury	10	1	2		1						14
Bogota	2		15	1	5	1	5		8		32
Boonton	2		10	2	13	2	1		3		33
Bordentown	16	5	8	2	7	1					39
Bound Brook	23	15	13	5	7	1	3		2		69
Bradley Beach			1								1
Branchville	1				1				1		3
Bridgeton	14	5	34	9	6				10	2	80
Brown's Mills	2		5	4	1						12
Burlington	8	1	9		17	3					38
Butler	1		4	1							6
Caldwell	27	11	13		9		9		6		75
Califon	3	2	4		1						14
Camden	1,284	443	246	18	193	59	35	3	89	36	2,406
Canton									1		1
Cape May	1		14	1	2		2		10		30
Cape May Court House	3	2	4		1						10
Carlstadt	3		6		3						12
Carteret					2						2
Cedarville	2	1	2				1				6
Chatham	4	3	1			5					13
Chester	2		1						1		4
Chesterfield	2	1	1		2						6
Chrome			1		3	2					6
Clayton			1	1	1				1		4
Clifton	39	8	18	1	17		8		5		96
Clinton	31	31	4		4	3					73
Closter	8	2	13	4	6						33
Collingswood	11	10	5		6	1	4		1		38
Columbus			1		1				1		3

TABLE 6.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY CITIES AND TOWNS.—Continued.

TOWNS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Cranbury			3						1		4
Cranford	19	4	26	5	14		1	2	2		73
Crosswicks	1	5					1				7
Daretown	1		2	1					1		5
Dayton	1		1								2
Deal									1		1
Delanco	1		4								5
Dennisville	14	4	21	10	2				10		61
Dover	6		16	2	8	1	3	1	6	1	44
Dumont	10	5	9		5		3				32
Dunellen	3	2	18	3	10		14		6		56
East Millstone			3								3
East Newark			6								6
East Orange			77	27	26	6	2		1		139
East Rutherford	5	2	19	1	12	3			1		43
Eatontown			1								1
Edgewater	1	5									6
Egg Harbor	3	6	8	1	3		1		1		23
Elizabeth	61	11	194	22	95	13	1		4		401
Elmer			1								1
Englewood	81	92	24	4	40	10	3		5		259
Englishtown	2	1									3
Erma			1								1
Fair Haven	2		5	1	3		1				12
Fanwood	2		7	1	1						11
Farmingdale	6	4	4		2						16
Flanders	9	2	1								12
Flemington	21	14	4	1	5	1	1	1	2		50
Florence	2	1	5		2						10
Fort Lee	2	2	10	1					1		16
Franklin					2						2
Franklin Furnace	6	4			2						12
Freehold	1		15	8	10	2	1		6		43
Garfield	15	12	29	3	3		2		1		65
Georgetown					1	1					2
German Valley	3		1		3		2		1		10
Gladstone	7	7	1	1					1		17
Glassboro			1		1				1		3
Glen Gardner			2	1							3
Glen Ridge	2	7	1	2							12
Gloucester	4	2	10	1	4				1		22
Grantwood	27	40	3						1		71
Greenwich					1						1
Grenloch			1								1
Greystone Park					1						1
Guttenburg	12	5		1	1						19
Hackensack	81	34	136	17	49	6	8		26	2	359
Hackettstown	5		1		1	1			1		9
Haddonfield	31	16	23	4	30	5			1		110
Haddon Heights	1		1		7						9
Haledon			1								1
Hamburg	5		1		3						9
Hamilton Square	3	4	3	1							11
Hammonton	1		2		9						12
Hampton			3						1		4
Harrison			12	4	1				1		18
Hasbrouck Heights	3		9	1	5	1	2		2		23
Hawthorne									1		1
Heislerville			2		1						3
High Bridge	1	1	5	1	4				1		13

TABLE 6.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY CITIES AND TOWNS.—Continued.

TOWNS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Highland Park	1		1		1						3
Highwood Park			1		1						2
Highlands			3	1	1						5
Hightstown	1		14	5	3	1					24
Hoboken	44	5	139	16	155	17			13	2	396
Holly Beach	1		1								2
Holmdel			2	1	1						4
Hopewell			1		2				2		5
Hudson Heights			2								2
Irvington	51	28	35	4	8	2	1		6	4	139
Island Heights			1								1
Jamesburg	1		4		3		1				9
Jersey City	45	3	311	34	122	6	3		44	18	586
Kearny			21	3	5				4	1	34
Keyport	7	7	19	3	16	3					55
Lafayette			1								1
Lakehurst	6	4	6								16
Lakewood	10	3	31	6	7		5		10	3	75
Lambertville			3	2	17	2			1		25
Laurel Springs			1		4		2		1		8
Lawrenceville	13	3	2	1	2						21
Layton			1	1							2
Lebanon					3						3
Leesburg			1		4						5
Leonia	4	1	1								6
Linden	9	12	6		3	1			1	1	3
Linwood			3								33
Little Falls	2	3	4	4	1						14
Lodi	6		3	2							11
Long Branch	24	10	79	9	112	17	11		4		266
Lyndhurst	1	1	4	6	9	1	2				24
Madison	9	3	11	5	7		2		2		39
Magnolia	4	3	5		3				1		16
Manahawkin					2						2
Manasquan					1						1
Mantica			2	1							3
Maplewood			20	9	4	1					34
Marlboro			2								2
Marlton			1								1
Matawan	3		4		3		2		4		16
Mays Landing	1	1			1				1		4
Maywood	6	3	9	1	4	1			2		26
Medford			1								1
Mendham	17	104	2		4	3					130
Merchantville	47	43	13		5				1		109
Metuchen	110	48	35	6	10		1		8		218
Midland Park			10	1					3		14
Millstone			1								1
Milltown	2		11		7				1	1	22
Millville	4	1	39	2	5	2	1		4		58
Milton			1								1
Minotola									2		2
Montclair			2								2
Montville	1										1
Moorestown	13	3	15	5	18	12	3		4		73
Morris Plains	3	1		1	3						8
Morristown	18	6	39	6	44	9	1		2		125
Mount Arlington					1	1					2
Mount Holly	75	37	23	3	33	17					188
Mullica Hill	2	1	3		4				3		13

TABLE 6.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY CITIES AND TOWNS.—Continued.

TOWNS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Neshanic					1	2					3
Nelsonville									1		1
Netcong	2	1	5		5				3		16
Newark	15	2	63	13	10	1	6		15	1	126
New Brunswick	23	1	100	6	36	5	1		15		187
New Egypt			3	1							4
Newfield	3				1						4
Newfoundland			2								2
New Lisbon	2		1								3
New Market			1		3						4
Newport			1	1							2
Newton	24	30	8	1	12	3	2				80
Nichols, N. Y.	1										1
North Bergen	4										4
North Branch	2	1	1								4
North Plainfield			1								1
Nutley	4	3	5	1	1						14
Oakland			2	1	1						4
Ocean City	40	38	2		20	2	1		2		105
Ocean Grove	1		6	2	4		1				14
Odgensburg	1		1								2
Oradell	3	2	2		1						8
Orange	3		101	9	30	11	5		14	11	184
Oxford			3		3	1					7
Palisade Park	11	1	4	4							20
Palmyra	10	25	7		11	2	1				56
Park Ridge	1		13		3		1		1		19
Passaic	126	126	281	38	72	5	34	1	33	4	720
Paterson	16	3	285	35	117	11	2		10		479
Pattenburg			1								1
Paulsboro	17	18	4	1	13				2		55
Peapack	2		1		3						6
Pedricktown	21	7	1								29
Pemberton	1		1		2				3		7
Pennington			4								4
Penns Grove	47	31	1	1	4	1			3		88
Pennsville			1	1							2
Pensauken	7	1	2						3		13
Perth Amboy	1		90	21	109	15	2		6		244
Phillipsburg			6	1	2						9
Pitman	1		14	2	3						20
Plainfield	44	34	47	4	47	7	9		7	1	200
Pleasantville	31	1	15		6	1			1		55
Point Pleasant	2		2		9	2	1				16
Pompton Lakes			7		4	1					12
Port Norris	2		6		5	1			4		18
Princeton	37	3	32	5	31	8	17		12	4	149
Rahway	11	1	63	3	57	3			4		142
Ramsey	36	11	9	1	3						60
Raritan	21	17	1	2	1						42
Red Bank	8	3	26	1	9		3		3		53
Ridgefield	1		3		2				1		7
Ridgefield Park	30	23	19	1	15		6	1	3		98
Ridgewood	9	2	37	6	9		4				67
Ringoes	5		3	1							9
Riverside	6	1	12		5	1					25
Riverton	5	4	5	2	8	2	1				27
Rockaway	15	2	25	5	3	1	6	1	4		62
Rocky Hill			1						1		2
Roebling	8		6	2	53	5			1		75

TABLE 6.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY CITIES AND TOWNS.—Continued.

TOWNS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Roselle	6	3	5	2							16
Roselle Park	3	13	2	1	1				3		23
Roosevelt									3		3
Rosemont			1								1
Rumson				1							1
Rutherford	26	17	16	1	32	9			3		104
Salem	43	13	18	2	10		3		2	1	92
Sayreville					2						2
Sea Bright			6		6						12
Sea Isle City	16	31	7	2	21	5	1		7	1	91
Scullville									2		2
Sergeantville	1		2		1	2					6
Skillman	26	1	2	2	2				4		37
Somerville	23	12	30	4	13	3	2		1		88
Somerset			1								1
South Amboy					2				1	1	4
South Orange	1		36	13	3						53
South River			3		2						5
Sparta			1								1
Springfield	12	10	22	1	4						49
Spring Lake	3	4	5		24	5	2				43
Spring Lake Beach			1		2						3
Stanhope			3	1	4	1					9
Stanton					2	1					3
Stewartsville			1								1
Stillwater			1		3						4
Stirling	4		1		2	1					8
Succasunna	7		3	1	1		1				13
Summit	125	40	29	4	26	6	8		4		242
Swedesboro			3	2					1		6
Tenafly	6	2	6	3	2		1				20
Toms River	20	12	4	1	4		1				42
Town of Union	3		10								13
Trenton	173	125	709	201	417	78	32	2	256	57	2,050
Tuckerton	93	9									102
Tuckahoe	1		1						2		4
Union			1		2					1	4
Union Hill			26	2	7	3			1		39
Vernon			1		1						2
Ventnor City			1								1
Verona			17	2	13				1		33
Vienna			1								1
Vincentown	1				1	1					3
Vineland	311	283	51	8	49	2			28	7	739
Waldwick	2		3		4				1		10
Washington	1		18	2	9	1	1		12	1	45
Wanaque					1						1
Weehawken	4		20		12	2	2		3	1	44
Wenonah			2	1	9						12
West Collingswood	1	1	2		1				1		6
West End					2	1					3
Westfield	29	29	50	8	15	1	5		2		139
West Haddonfield		3	1	1							5
West Hoboken	9		89	11	34	3	4		2		152
West Long Branch	1			1			1	1			4
West New York	48	20	55	8	11	1	1		2		146
West Orange	1		12	2	9	1	3		5		33
Westville	1		3	1	3						8
Westwood	13		20	4	16	1	13		9	2	78
Wharton	5	3	4								12

TABLE 6.—SHOWING THE NUMBER OF SPECIMENS EXAMINED DURING THE YEAR ARRANGED BY CITIES AND TOWNS.—Continued.

TOWNS.	DIPHTHERIA.		TUBERCULOSIS.		TYPHOID FEVER.		MALARIA.		MISCELLANEOUS.		Totals.
	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	Primary.	Secondary.	
Wilburtha	1	....	....	....	....	....	....	....	....	....	1
Whippany	1	....	1	....	....	....	....	....	....	....	2
White House	....	....	....	....	1	....	....	....	....	....	1
White House Station	....	....	....	....	1	....	....	....	....	....	1
Wildwood	17	26	32	2	....	....	....	....	....	....	77
Williamstown	8	9	3	1	7	....	....	....	2	....	30
Woodbine	6	4	4	1	5	....	....	....	1	....	21
Woodbury	10	7	26	7	21	5	2	....	15	3	96
Woodbridge	76	63	40	6	3	....	....	....	3	....	191
Woodridge	....	....	13	1	2	....	5	....	....	....	21
Woodbury	....	....	....	....	....	....	....	....	1	1	2
Woodstown	16	11	3	....	2	....	....	....	5	....	37
Wyckoff	....	....	2	....	....	....	....	....	....	....	2
Yardville	....	....	1	2	....	....	....	....	....	....	3
Blanks	13	....	8	....	2	....	....	....	4	....	27
Totals	4,645	2,438	5,290	846	3,104	478	389	14	968	170	18,342

The postal regulations have been modified with respect to the transmission of bacteriological specimens by providing that on payment of postage at parcel post rates, specimens should under the provisions of section 495, Postal Laws and Regulations, be pouched with letter mail, that is, dispatched with the same expeditiousness as first class matter. The outfits provided by the laboratory for the collection of specimens comply with the provisions of this section and physicians using these outfits are entitled to these reduced rates.

Sometimes considerable delay occurs in the mails in receiving specimens from some of the smaller post offices, where the postmaster is not familiar with the above mentioned section and forwards these outfits with parcel post matter, instead of with first class matter. Physicians should call the attention of their postmaster to this section of the postal laws and regulations if they have reason to believe that their specimens are being handled in this way.

Table G shows the list of places where mailing cases provided by the laboratory are kept in stock and may be obtained by physicians upon request. This list is inserted in order that physicians and others requiring these cases may be able to ascertain without trouble where they may be had.

It is our desire to keep these repositories supplied with mailing cases at all times and persons maintaining them are requested to notify the laboratory promptly of their needs before their stock becomes entirely exhausted.

TABLE 7.

LIST OF REPOSITORIES FOR MAILING CASES.

Allentown	George M. Carslake, Druggist
Alloway	W. L. Ewen, Physician
Andover	J. C. Clark, Physician
Anglesea	Margaret Mace, Physician
Arlington	W. E. Doremus & C. R. Brown, Physicians
"	August A. Strasser, Physician
"	J. B. Thomson, Druggist
Asbury Park	Board of Health, B. H. Obert, Sec'y
Atco	J. I. Hiverder, Physician
Atlantic City	Atlantic City Hospital
" "	Dr. Maurice Brown, Atlantic City Hospital
" "	Children's Seashore Home
" "	Board of Health, Dr. Ed. Guion, Physician
" "	Cowperthwaite's Druggists
" "	Cuscaden, Inc., Druggists
" "	Davison-Watson Drug Co.
" "	H. H. Deakyne, Druggist
" "	De Davis Drug Store
" "	Galbreath Pharmacy
" "	Chas. H. Jackson, Druggist
" "	Lawrence's Pharmacy
" "	Municipal Hospital
" "	Wm. F. Ridgway, Druggist
Atlantic Highlands	Board of Health
" "	George D. Fay, Physician
Audubon	Audubon Drug Co.
"	I. G. Seiber, Druggist
Baptistown	F. S. Grim, Physician
Barnegat	F. N. Bunnell
Bay Head	Priest's Pharmacy
" "	W. H. Katzenback, Physician
Bayonne	J. A. Balinky & Son, Druggists
"	Board of Health
"	J. H. Burchell, Druggist
"	Landell's Drug Store
"	F. N. L. Strange, Druggist
"	D. I. Nalitt, Physician
"	Strauss Bros., Druggists
Beach Haven	H. Willis, Physician

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Bedminster	J. B. Beekman, Physician
Bellville	Louis H. Galluba, Druggist
”	A. H. Osborne, Druggist
Belmar	Board of Health
Belvidere	Faust Bros., Druggist
Bergenfield	Board of Health
”	Wm. H. Regan, Druggist
Berlin	Board of Health
”	Frank Stern, Physician
Bernardsville	M. Hemmendinger, Druggist
”	J. Meigh, Physician
Beverly	E. S. Adams, Physician
”	Warren St. Pharmacy
Blackwood	Board of Health
Blairtown	Wm. C. Allen, Physician
Bloomfield	Board of Health
”	Wm. W. Keyler, Druggist
”	J. H. Wood, Druggist
Bloomsbury	James A. Betts, Physician
”	E. L. Reigle, Physician
Bogota	G. L. Edwards, Physician
Boonton	A. E. Carpenter, Physician
”	John L. Taylor, Physician
”	Cuthbert Wigg, Physician
Bordentown	Bordentown Military Institute
”	Deacon's Drug Store
”	Samuel W. Fitzgerald, Druggist
Bound Brook	Fetterly & Loree, Druggists
” ”	Lloyd & McNabb, Druggists
Bradley Beach	Board of Health
” ”	W. K. Bradner, Physician
Branchville	A. A. Ranson, Physician
Bridgeton	Blew & Blew, Druggists
”	Board of Health
”	Charles T. Dare & Son, Druggists
”	Albert S. Elwell, Druggist
”	J. C. Loper, Health Officer
”	Thos. H. Woodruff, Druggist
Burlington	Harold B. Allen, Druggist
”	John W. Davis, Druggist
”	John Rigg, Druggist
”	H. B. Weaver, Druggist
”	Geo. T. Williams, Druggist
Butler	S. E. Estler, Druggist
Caldwell	Edwin E. Bond, Physician
”	Essex County Penitentiary
”	Wm. N. Hasler, Druggist
”	C. E. Hoffman, Druggist
Califon	Board of Health
Camden	Barrett Bros., Druggists
”	Geo. M. Beringer, Druggist
”	Board of Health
”	Camden City Dispensary
”	Frank O. Stein, County Physician
”	Wm. A. Chamberlain, Druggist
”	E. W. Collins, Druggist

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Camden	Cooper Hospital
"	Henry Curtis, Druggist
"	R. I. Haines, Physician & Druggist
"	Oscar N. Hinski, Druggist
"	E. G. Hammell, Physician
"	Wm. F. H. Koegel, Druggist
"	John W. Kohlman, Druggist
"	Wilson J. Leib, Druggist
"	Mahaffey's Pharmacy
"	George J. Pechin, Druggist
"	Wm. P. Weiser, Druggist
"	West Jersey Hom. Hospital
"	Lewis H. Wilson, Druggist
Cape May	V. M. D. Marcy & Co., Druggist
" "	James Mecray, Druggist
Cape May Court House	Willets Corson, Druggist
Carlstadt	Albert Niederer, Druggist
"	H. A. Schmidt, Justice of the Peace
Carteret	Reason's Pharmacy
Cassville	Otto C. Thomson, Physician
Cedarville	E. B. Peace, Physician
Chatham	M. H. Robinson, Druggist
"	W. J. Wolfe, Physician
"	A. D. Wyckoff, Druggist
Chester	Harris Day, Physician
"	Alonzo P. Green, Druggist
"	W. A. Green, Physician
Chesterfield	N. H. Chaffle, Physician
Clayton	C. F. Fisler, Physician
Cliffside	Hugo A. Silsby, Druggist
Clifton	Clifton Pharmacy
"	Lester F. Meloney, Physician
"	J. Zimmer, Druggist
Clinton	Wm. H. Baker, Druggist
"	N. J. State Reformatory for Women
Closter	Charles A. Richardson, Physician
"	Alfred W. Ward, Physician
Collingswood	Wm. Chamberlain, Druggist
"	Edward B. Rogers, Physician
Columbus	J. E. Dubell, Physician
Cranbury	B. F. Van Dyke, Physician
Cranford	John Marien, Druggist
"	John R. Reay, Druggist
Crosswicks	Charles L. Dey, Physician
Daretown	Geo. Fitch, Physician
Dayton	Edgar Carroll, Physician
Delanco	H. W. Weiler, Physician
Dennisville	Eugene Way, Physician
Dover	Board of Health
"	Killgore & White, Druggists
Dumont	J. E. Pratt, Physician
Dunellen	John Marien, Druggist
"	Edward Pennock, Druggist
East Orange	Board of Health
" "	John G. Boytine, Druggist
" "	Frank Fieger, Druggist

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

East Orange	Gillbard's Drug Store
" "	Grove St. Pharmacy
" "	T. G. Schriver, Druggist
East Rutherford	Board of Health
Eatontown	H. T. Partree, Physician
Edgewater	Board of Health
"	Paul Goldberg, Druggist
"	S. T. Hubbard, Physician
Egg Harbor	Board of Health
Elizabeth	Board of Health
"	Thomas Cummings, Druggist
"	B. F. Davis, Druggist
"	Fred M. Egger, Druggist
"	Elizabeth Gen. Hospital
"	Richard Frohwein, Druggist
"	Henry Jacobson, Druggist
"	Samuel M. Jacobson, Druggist
"	Jefferson St. Pharmacy
"	Martin & Reibel, Druggists
"	Walter I. McCann, Druggist
"	Oliver & Drake, Druggists
"	Elias W. Parsons, Druggist
"	Harry P. Reebel, Druggist
"	Wm. H. Reibel, Druggist
"	Richard & Co., Chemists
"	Samson's Pharmacy
"	Harry Schmidt, Druggist
"	Henry J. Schmidt, Druggist
"	Edward Steeb, Druggist
"	St. Elizabeth's Hospital
"	F. C. Strutzlen, Druggist
"	Thum Bros., Druggists
Elizabethport	Oake's Pharmacy
Elmer	Board of Health
Englewood	Lewis W. Brown, Druggist
"	Bureau of Assoc. Relief
"	Civic Ass'n of Englewood
"	Englewood Hospital
"	Englewood Pharmacy
"	W. R. Kent, Druggist
"	R. Rockefeller Co., Druggists
"	Wm. E. H. Schneider, Druggist
"	H. L. Waldron, Civic Ass'n
Englishtown	Wm. E. Anderson, Physician
Fairton	Harry E. Lore, Physician
Far Hills	F. L. Field, Physician
Farmingdale	V. Bacon, Druggist
"	W. R. Kimmouth, Physician
Flanders	Board of Health
Flemington	Franklin C. Burk, Druggist
Florence	David Baird, Jr., Physician
Fort Lee	Carl L. Richter, Druggist
" "	Max Wyler, Physician
Franklin Furnace	Chas. M. Dunning, Physician
Freehold	W. B. Duryee, Druggist
"	Lehvitter's Pharmacy

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Freehold	Joseph H. Rosell, Druggist
Frenchtown	F. H. Decker, Physician
Garfield	Bradley A. Reynolds, Druggist
German Valley	S. G. Lee, Physician
" "	Wm. James, Physician
Gladstone	M. C. Smalley, Physician
Glassboro	F. G. Thoman, Druggist
Glen Gardner	Glen Gardner Tuberculosis Sanitorium
Glen Ridge	H. Wallace, Physician
Gloucester	Atlantic Pharmacy
"	MacLennan's Pharmacy
Grantwood	M. P. Brewster, Physician
"	Philip E. Brundage, Physician
"	H. F. Goemann, Druggist
Greenwich	Allan Harris, Physician
Grenloch	Camden County Almshouse
Guttenberg	Board of Health
"	C. A. Emmerich, Druggist
"	Jacob B. Zimmerman, Druggist
Hackensack	Alex. Denig, Druggist
"	Franck's Pharmacy
"	Hackensack Hospital
"	Eugene A. McFadden, Druggist
"	C. V. S. Rea, Druggist
"	C. R. Shryer, Druggist
"	D. St. John, Physician
"	T. E. Van Stone, Druggist
Hackettstown	C. V. S. Rea, Druggist
"	A. C. Van Syckle, Physician
Haddonfield	W. W. Flitcraft, Druggist
"	R. Willard, Druggist
Haddon Heights	Chas. E. Shillet, Druggist
Hainesport	Wm. C. Parry, Physician
Haledon	Leo Joffe, Druggist
Hamburg	Jos. C. Coleman, Physician
"	Thomas L. Pellett, Physician
"	Dr. Uptegrove
Hamilton Square	Dr. F. B. Zandt
Hammonton	Chas. Cunningham, Physician
Hampton	Morris R. Allbright, Druggist
"	Board of Health
Harrison	Board of Health
"	Chas. W. Rothe, Druggist
"	M. F. Squier, Druggist
Hasbrouck Heights	J. A. Powelson, Druggist
Heislerville	Chas Butcher, Physician
High Bridge	F. C. Low, Physician
" "	John J. Rufe, Physician
Highland Park	A. E. Fendrich, Physician
Highlands	John L. Oppermann, Physician
Hightstown	D. H. Cunningham, Druggist
"	Harvey G. Rue, Druggist
Hoboken	Frank O. Colis, Druggist
"	A. J. Dittmar, Druggist
"	George Hoffman, Druggist
"	Jefferson Pharmacy

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Hoboken	Wm. Kamlah, Druggist
"	Kudlich, Physician
"	S. F. La Piana, Druggist
"	Wm. T. Lins, Jr., Druggist
"	Adolph Schmidt, Druggist
"	Chas. H. Schmidt, Druggist
"	St. Mary's Hospital
"	Chas. Sunkel, Druggist
"	Geo. Wood, Physician
"	J. F. Zenneck, Physician
Hopewell	G. E. Pierson, Physician
Hudson Heights	Wm. T. Lins, Jr., Druggist
Imlaystown	R. F. Garrison, Physician
"	Franklin C. Price, Physician
Irvington	John F. Ahrens, Druggist
"	J. F. Bowman, Physician
"	Harry McDavit, Druggist
Island Heights	Henry H. Davis, Physician
" "	Davis Drug Store
Jamesburg	J. C. Shinn, Physician
Jersey City	James D. Adams, Druggist
" "	J. G. Block, Druggist
" "	Boulevard Pharmacy
" "	Board of Health
" "	H. A. Bruckner, Druggist
" "	Wm. Buchbinder, Druggist
" "	L. E. Carpenter, Druggist
" "	Frank O. Cole, Druggist
" "	L. Donato Di Paola, Druggist
" "	A. J. Dittmar, Druggist
" "	James Foulke, Druggist
" "	John C. Gallagher, Druggist
" "	A. Gold, Druggist
" "	H. S. Hitchcock, Druggist
" "	J. M. Holloway, Physician
" "	Walter Huber, Druggist
" "	The Jewett Pharmacy
" "	M. Lein
" "	F. Lischke, Druggist
" "	Charles Loeller, Druggist
" "	E. Henry Maier, Druggist
" "	H. F. W. Mayer, Druggist
" "	C. J. McCloskey, Druggist
" "	G. A. H. Mielke, Druggist
" "	Chas. Molz, Druggist
" "	Robert V. Smith, Druggist
" "	Albert Stehling, Druggist
" "	Stein & Co., Druggists
" "	St. Francis Hospital
" "	E. H. Struckman, Druggist
" "	The Summit Pharmacy
" "	Walter R. Taft, Druggist
" "	R. E. Whilhelm, Druggist
" "	Samuel Weber, Druggist
" "	George H. White, Druggist
Kearny	Board of Health

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Kenvil	E. W. Kirkpatrick, (Roxbury Bd. of Health)
Keyport	R. O. Walling, Druggist
"	Wm. E. Warn, Druggist
Kingsland	Board of Health
Lakehurst	Priest's Pharmacy
Lakewood	The Harrison Drug Store
"	D. H. Hills Drug Co.
"	Lakewood Pharmacy
"	Leon A. Taylor, Druggist
Lambertville	S. W. Cochran & Co., Druggists
Landing	Board of Health
Lawrenceville	E. K. Fee, Physician
Layton	Edward W. Jones, Physician
"	A. A. Ranson, Physician
Leesburg	George S. Spence, Physician
Leonia	E. N. C. Pharmacy
Linden	H. Page Hough, Physician
Lindenwald	Board of Health
Linwood	P. S. Stellman, Physician
Little Falls	W. F. Van Deinse, Physician
Lodi	U. S. Pharmacy
Long Branch	J. W. Bennett, Physician
" "	E. B. Blaisdell, Druggist
" "	Board of Health
" "	Frank K. Gano, Druggist
" "	Monmouth Memorial Hosp.
" "	S. J. Woolley, Physician
Lumberton	J. H. Stermer, Druggist
Lyndhurst	John W. Clarke, Physician
Madison	Harvey C. De Hart, Druggist
"	Chas. B. Gee & Son, Druggists
"	Wm. H. Larison, Druggist
Magnolia	Leslie C. Lyon, Physician
Maplewood	Board of Health
"	B. B. Ranson, Physician
Matawan	Board of Education
"	Nathan Ervin, Physician
"	Sanford's Rexall Pharmacy
Mays Landing	Henry C. James, Physician
Maywood	Frank Freeland, Physician
Medford	Henry Thorn, Druggist
Mendham	Mendham Pharmacy
"	Leo Robinson, Druggist
Merchantville	E. W. Gibhardt, Druggist
"	J. W. Kohllerman, Druggist
Metuchen	Board of Health
"	Alfred L. Ellis, Physician
"	L. Y. Lippencott, Physician
Middletown	D. D. Hendrickson, Physician
Midland Park	Joseph Payne, Physician
Midvale	Shippee's Pharmacy
Millburn	George S. Campbell, Druggist
"	Fruchtman's Drug Store
Millstone	S. V. B. Taylor, Physician
Millville	Board of Health
"	Emergency Hospital

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Millville	Jesse Thomley Hughes, Druggist
"	Smith & Reeves, Druggist
"	Frank N. Weber, Druggist
"	Geo. W. Webber, Druggist
"	West Side Pharmacy
Milton	Joseph P. Riggs, Druggist
Minitola	Di Dubler
Montclair	Board of Health
"	Mountainside Hospital
"	M. J. Synott, Physician
Montville	Board of Health
Moorestown	Board of Health
Morris Plains	N. J. State Hospital
Morristown	Board of Health
"	All Souls Hospital
"	Memorial Hospital
"	Henry M. Smith, Druggist
Mt. Arlington	C. D. Gordon, Physician
Mount Holly	H. B. Allen, Druggist
" "	Jones Pharmacy
Mullica Hill	Samuel F. Ashcraft, Physician
" "	H. Bailey Chaffant, Physician
Neptune Twp	Board of Health
Netcong	Drake-Bostedo Co., Druggists
"	H. W. Thayer, Druggist
Newark	Thomas W. Corwin, Physician
"	St. Barnabas Hospital
"	W. H. Warren & Co., Druggists
New Brunswick	G. H. Bissett, Druggist
" "	L. H. Hoagland, Druggist
" "	Middlesex Pharmacy
" "	Miller's Drug Store
" "	Monigan's Pharmacy
" "	Schuyler S. Rust, Druggist
" "	P. A. Tilley, Druggist
" "	The Van Deursen Pharmacy
" "	Edwin R. Van Pelt, Druggist
" "	The John Wells Memorial Hospital
New Egypt	Wm. C. Jones, Druggist
Newfoundland	D. E. Drake, Physician
Newport	Geo. E. James, Physician
Newton	Board of Health
"	Isreal L. Hallock, Insp.
"	H. O. Ryerson, Druggist
Norma	David H. Rappaport, Physician
Nutley	Board of Health
"	James Crammond, Druggist
"	Henry T. Lefferts, Druggist
Oakland	E. W. Hamilton, Physician
Ocean City	Board of Health
" "	Maddock's Drug Store
Ocean Grove	Board of Health
Ogdensburg	L. C. Burd, Physician
Old Bridge	I. C. Crandell, Physician
Oradell	F. O. Blenckstone, Physician
"	Board of Health

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Oradell	**C. W. Datesman, Physician**
Orange	**Anti Tuberculosis League**
"	**Beegles Drug Store**
"	**John Frederick Behrens, Druggist**
"	**Board of Health**
"	**C. E. Dooling, Physician**
"	**A. Mosler, Druggist**
"	**Orange Memorial Hospital**
"	**St. Mary's Hospital**
Palmyra	**H. W. Bauer, Physician**
"	**Lewis L. Sharp, Physician**
"	**F. C. Witte, Physician**
Park Ridge	**S. Alexander, Physician**
" "	**Henry C. Neer, Physician**
Passaic	**Henry Balson, Druggist**
"	**Wm. C. Berger, Druggist**
"	**Board of Health**
"	**Carroll Drug Co.**
"	**General Hospital**
"	**Otto Lane, Druggist**
"	**Lincoln Drug Co.**
"	**Patierno's Pharmacy**
"	**Walter Peters, Druggist**
"	**Post & Friedrich Drug Co.**
"	**Prebol's Pharmacy**
"	**Red Cross Pharmacy**
"	**Eugene Richter, Druggist**
"	**B. Rood, Druggist**
"	**Joseph Roth, Druggist**
"	**W. H. Stemmerman, Druggist**
"	**St. Mary's Hospital**
"	**St. Stephen's Pharmacy**
"	**Z. Tegze's Pharmacy**
"	**Vanriper Co., Pharmacy**
"	**Morris Zimmer, Pharmacy**
Paterson	**Board of Health**
"	**Maxwell Bukofzer, Druggist**
"	**Eye and Ear Infirmary**
"	**Keller's Totowa Pharmacy**
"	**Paterson General Hospital**
"	**Louis Patmor, Druggist**
"	**G. E. Pellett, Druggist**
"	**St. Joseph's Hospital**
Paulsboro	**A. B. Black, Druggist**
"	**Howard H. Boltz & Co., Druggists**
"	**W. J. Moore, Druggist**
Peapack	**C. R. Kay, Physician**
Pemberton	**E. Hollingshead, Physician**
Pensauken	**Gerhard Loeling, Physician**
Penns Grove	**Board of Health**
" "	**B. Arete Johnson, Druggist**
" "	**Robbins Pharmacy**
Perth Amboy	**Barnehov & Petz, Druggists**
" "	**Board of Health**
" "	**City Hospital**
" "	**G. W. Fithian, Physician**

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Perth Amboy	Dr. Ramsey, Physician
" "	F. A. Seaman, Druggist
Phillipsburg	C. E. Griffin, Druggist
"	Wm. C. Hoffman, Druggist
Pitman	F. Lummis, Druggist
"	C. B. Phillips, Physician
Plainfield	Board of Health
"	E. F. Chaplin, Druggist
"	Hodge's Pharmacy
Pleasantville	Thomas F. Crawford, Druggist
"	J. H. North, Physician
Point Pleasant	A. B. Johnson, Druggist
Pompton Lakes	Wm. S. Colfax, Physician
Port Norris	Samuel T. Day, Physician
Princeton	Chadwick's Drug Store
"	Wm. L. Briner, Druggist
"	Marsh & Co., Druggists
Rahway	George F. Brown, Druggist
"	Davis' Pharmacy
"	N. J. Reformatory
"	Joseph G. Smith, Druggist
Ramsey	Board of Health
Raritan	Board of Health
"	A. B. Rohn, Jr., Druggist
Red Bank	Chas. A. Minton, Druggist
Ridgefield Park	H. C. Elsing, Physician
" "	Charles Albert Knox, Physician
" "	F. Ward Langstroth, Physician
" "	Park Drug Co.
Ridgewood	E. B. Thornton, Druggist
"	H. A. Tice, Druggist
"	W. L. Vroom, Physician
Ringoes	Peter R. Young, Physician
Riverside	Louis M. Hires, Druggist
"	Warren C. Pine, Druggist
Riverton	Alex. Marcy, Physician
"	Chas. Street Mills, Physician
Rockaway	Frederick W. Flagge, Physician
"	George H. Foster, Physician
Rocky Hill	M. Reeve, Physician
Roebling	Paul Traub, Physician
Roselle	Jay W. Rewalt, Druggist
Roselle Park	Board of Health
" "	George H. Horning, Druggist
Rosemont	G. N. Best, Physician
Rutherford	Board of Health
Salem	Wm. H. Andrews, Druggist
"	Board of Health
"	Davis Drug Co.
"	Dixon & Fogg, Druggists
Sea Bright	D. H. Karp, Physician
" "	Sea Bright Pharmacy
Sea Isle City	C. W. Way, Physician
Seaside Park	Martin Goldsmith, Druggist
Sergeantsville	J. L. Chamberlin, Physician
Shiloh	H. H. Fritts, Physician

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Skillman	N. J. State Village for Epileptics
Somerville	John D. Case, Druggist
"	Philip P. Cron, Druggist
"	Lancelot Ely, Physician
South Amboy	Board of Health
" "	D. Meacham, Physician
South Orange	W. H. Britton, Druggist
" "	Wm. Kehoe, Druggist
South River	L. Evans Selover, Physician
Springfield	Chas. R. Garabrant, Druggist
"	J. A. Stites, Physician
Spring Lake	D. H. Hills Drug Co.
" "	Ann May Mem. Hospital
Stanhope	Nelden's Pharmacy
Stewartsville	F. W. Curtis, Physician
Succasunna	N. H. Adsit, Physician
Summit	Board of Health
"	Wm. Tyler Green, Druggist
"	Overlook Hospital
"	Wm. H. Rogers, Druggist
Sussex	Board of Health
"	H. D. Van Gaasbeck, Physician
Swedesboro	Guest & Guest, Druggists
Tenafly	Board of Health
"	F. C. Bower & Son, Druggists
"	J. M. MacKellar, Physician
Titusville	M. S. Simpson, Physician
Toms River	Board of Health
" "	Frank Brouwer, Physician
Town of Union	Board of Health
" "	August Frank, Druggist
" "	R. F. Hellstern, Druggist
" "	J. Quigley, Physician
" "	Lanterback & Bischoff, Druggists
" "	David Weisman, Druggist
Trenton	Bakers' Drug Store
"	W. H. Barnes, Druggist
"	Board of Health
"	Mrs. Mary E. Brown, Druggist
"	Christian Pharmacy
"	Daniel L. Cook, Druggist
"	Davison's Drug Store
"	Oscar Davison, Druggist
"	Laboratory of Hygiene, State House
"	A. W. Farley, Druggist
"	Freeman's Pharmacy
"	H. D. Goodenough, Druggist
"	W. H. Harbourt, Druggist
"	Holcombe Bros., Druggists
"	H. S. Hughes, Druggist
"	A. O. Jackson & Co., Druggists
"	I. J. Keuper, Druggist, S. Broad St.
"	I. J. Keuper, Druggist, S. Clinton St.
"	G. D. Laird, Druggist
"	Louis Lavinson, Druggist
"	Lewis W. Long, Druggist

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

Trenton	G. M. Lynch, Druggist
"	T. H. MacKenzie, Physician
"	James L. Mathis, Druggist
"	McKinley Hospital
"	Mercer Hospital
"	M. J. Moore, Druggist
"	New Jersey State Prison
"	Red Cross Pharmacy
"	Howard N. Richards, Druggist
"	E. E. Riggs, Druggist
"	Wm. B. Riker & Son Co., Druggists
"	Chas. F. Ruopp, Physician
"	Scott's Drug Store, Chestnut Ave.
"	Scott's Pharmacy
"	Scott's Drug Store, Beatty St.
"	St. Francis Hospital
"	Strasser's Pharmacy
"	David E. Stretch, Druggist
"	Chas. Stuckert, Druggist
"	W. Scott Taylor, Druggist
"	Chas. S. Thatcher, Druggist
"	Geo. N. Thomas, Druggist
"	The Tidd Pharmacy
"	Tuberculosis Hospital
"	Wendel's Drug Store
"	C. H. Young, Druggist
Tuckahoe	S. E. Ewing, Physician
Tuckerton	Durand's Drug Store
Union	J. M. Stites, Physician
Union Hill	August Frank, Druggist
" "	Union Drug Co.
Verona	Henry Fray, Druggist
"	H. B. Whitehorne, Physician
Vineland	Baker House Pharmacy
"	Board of Health
"	W. R. Faulkner, Physician
"	C. R. Goodfellow, Druggist
"	N. J. State Inst'n for Feeble-Minded Women
"	Red Cross Pharmacy
"	West Side Pharmacy
Waldwick	S. E. Robinson, Physician
Washington	Jenkins-Meeker, Druggists
"	The Opera House Pharmacy
Weehawken	H. E. Bischoff, Druggist
"	August Frank, Druggist
"	Wm. Kyvitz, Druggist
"	Lanterbach & Bischoff, Druggists
"	J. I. Maggard, Red Cross Pharmacy
"	North Hudson Hospital
"	B. Stermick, Druggist
Weehawken Heights	Wm. Koitz, Druggist
Wenonah	Board of Health
Westfield	George W. Frutchey, Druggist
West Hoboken	Board of Health
" "	Franck H. Eckert, Druggist
" "	Louis C. Lange, Physician

TABLE 7. (Continued).

LIST OF REPOSITORIES FOR MAILING CASES.

West Hoboken	Maggio's Drug Store
" "	Mrs. Muller, Druggist
" "	Joseph J. Parentini, Druggist
" "	R. Steuer, Druggist
" "	Weisenburg's Pharmacy
West New York	A. G. Einbeck
" " "	J. C. Justin, Druggist
" " "	J. J. Lauterbach, Druggist
" " "	Herman W. Mayer, Druggist
West Orange	Board of Health
" "	A. M. Bretzfield, Druggist
" "	George J. Geiger, Druggist
Westville	Charles E. Davis, Druggist
Westwood	G. M. Levitas, Physician
"	F. B. Palmer Co., Physicians
"	Theodore E. Townsend, Physician
Wharton	H. W. Kice, Physician
Wildwood	Nathan A. Cohen, Physician
"	Wm. Major
"	Emergency Hospital
Williamstown	J. G. Edwards, Physician
"	L. M. Halsey, Physician
Woodbine	I. P. Behrman, Physician
Woodbridge	Board of Health
"	B. W. Hoagland, Physician
"	Ira T. Spencer, Physician
Woodbury	A. L. Marshall, Druggist
"	Merrit Drug Store
"	W. H. Sutton, Druggist
Wood-Ridge	A. Liva, Physician
" "	Henry F. Nielson, Druggist
Woodstown	J. W. Hueston, Physician
"	C. P. McGeorge, Physician
Wyckoff	Walter F. Keating, Physician

FOOD AND DRUGS. William G. Tice, Chief Chemist.

In 1909 the Legislature, realizing the importance of clean and wholesome food, passed what is now known as the Sanitary Act (Chapter 231 of the laws of 1909). The law applies to all establishments where foods intended for sale are packed, handled, stored or produced and is intended to regulate the sanitary conditions of such places. It further provides that foods shall be securely protected from contamination by flies, dust and dirt, and so far as possible by the use of all reasonable means from all other foreign and injurious contamination.

Although many inspections were made of canning factories, slaughter-houses, restaurants, etc., during the year, as will be seen by one of the tables which follows, it was impossible to make investigations of all establishments affected by this Act. It was therefore decided to examine with some care one particular industry. The practice of exposing foodstuffs uncovered on stands placed on the sidewalks in front of grocery stores, meat markets and fruit stands to contamination by flies, dust and dirt appeared to us to be of considerable importance from a public health standpoint and it was decided to conduct an investigation along these lines.

For the purpose of facilitating the work, the State Board of Health, acting under authority contained in the Sanitary Act, made two rules governing the exposure of foods which are as follows:

Rule 1. Fruits vegetables, meats and other food products shall not be displayed or exposed on the sidewalk, or outside of places of business, unless such foods are securely covered by cases of glass, wood or metal, or unless they are inclosed in tight barrels, bags or boxes. Provided, however, that this rule shall not apply to fruits or vegetables which must necessarily be peeled before use, but such foods when displayed outdoors, must be supported on platforms at least eighteen inches above the surface of the sidewalk or ground.

Rule 2. Prepared foodstuffs, such as bakers' goods, confectionery, shelled nuts, etc.; dried fruits, such as dates, figs, peaches, prunes, apricots, etc.; cereal products, such as tapioca, breakfast foods, etc.; pickled products, such as pickles, chilli sauce, etc.; fruit products, such as apple butter, jellies, jams, etc.; meat products such as dried, salted or smoked fish, veal loaf, pickled pigs' feet, chipped beef, boiled ham, mince-meat or other foods prepared for eating subject to the attacks of worms or flies, shall not be displayed for sale unless protected from flies, dust and dirt and all other foreign and injurious contamination by suitable coverings of glass, wood or metal.

The reasons for these rules are obvious. Streets are dusty places. The dust of the street is made up to a consideralbe extent of dried and pulverized horse excrement which normally contains varieties of bacteria which may cause illness in human beings.

Foods are also exposed to flies when placed outside the store and the role of the fly as a carrier of disease is now quite well understood. The fly is born in filth and carries it with him always ready to deposit it on whatever he lights. Foods covered with street dust and flies are dangerous foods from which the public needs to be protected, because they do not yet realize the necessity of protecting themselves.

In an effort to interest local boards of health, and prior to beginning our inspections, a circular was sent to the local boards in this State, calling their attention to the law and rules, and asking them to enforce them. The results were discouraging. Some three or four boards enforced the rules, a few others made half-hearted attempts to do so, and the rest, so far as we could ascertain, did nothing. The State Board therefore employed a special inspector for this work alone. Inspections have now been made in forty-three cities and towns in the State and over one thousand seven hundred violations of the law have been discovered. In every case where violations were discovered, notices to discontinue the exposure of foodstuffs were sent to the violators, and copies of these notices were sent to the local boards of health with a request that they see that the orders of the State Board were enforced. This plan of putting definite information into the hands of the local boards of health was productive of good results. Of the forty-two boards of health to whom copies of the notices were sent, thirty promised to enforce the law, eleven did not reply, and two refused to co-operate with us. In Trenton because of the inactivity of the local board of health, it became necessary for the Board to prosecute a large number of merchants for continued violations of the law.

Foods which are eaten raw should never be exposed during the fly season in places where flies can gain access to them, but should be kept in doors and screened. Most grocers select the outside of the stores along the sidewalk as a suitable place to display such wares. These sidewalk displays are the most unsanitary feature of the modern grocery store and a determined effort will be made to stop them. This can be done if local boards of health will do their duty. Sufficient law is available and it is well adapted for enforcement by them inasmuch as no laboratory examination is necessary.

The following table shows in detail the work done by this section in regard to the enforcement of Chapter 231 of the laws of 1909 with respect to the exposure of foodstuffs outside of business places.

TABLE 8.

INSPECTION OF FOODS EXPOSED OUTSIDE OF BUSINESS PLACES.

LOCATION.	*Number of Notices sent to Discontinue Violations of Sanitary Act.*	*Reinspection by Local Boards of Health.*
Asbury Park	22	Yes
Atlantic City	212	Yes
Atlantic Highlands	5	No
Bayonne	47	Yes
Bergen Point	2	Yes
Bloomfield	5	No
Bordentown	13	No
Bridgeton	11	Yes
Burlington	19	Yes
Camden	151	Yes
Cape May	2	No
Cliffside	2	No
East Orange	18	No
Elizabeth	50	Yes
Flemington	6	Yes
Guttenberg	3	No
Hackensack	8	Yes
Highlands	5	No
Hoboken	127	Yes
Jersey City	195	Yes
Millville	17	Yes
Morristown	15	Yes
Newark	256	Yes
New Brunswick	44	Yes
Ocean City	10	Yes
Orange	26	Yes
Palmyra	5	No
Passaic	25	Yes
Paterson	148	Yes
Phillipsburg	20	Yes
Plainfield	14	Yes
Red Bank	16	No
Riverton	5	No
Rutherford	3	Yes
South Orange	3	Yes
Trenton	122	No
Union Hill	18	Yes
Washington	6	Yes
Weehawken	8	No
West New York	6	Yes
West Hoboken	23	Yes
Wildwood	13	Yes
Total	1706	

TABLE 9. SHOWING THE NUMBER AND KIND OF PLACES VISITED BY THE INSPECTORS DURING THE YEAR FOR THE PURPOSE OF COLLECTING SAMPLES AND GATHERING INFORMATION RELATING TO SANITARY CONDITIONS.

		Milk Wagons.	*Milk Depots.*	*Grocery Stores.*	*Drug Stores.*	*Cold Storage Warehouses.*
November	1912	200	45	297	8	18
December	1912	177	20	283	28	22
January	1913	233	55	368	25	21
February		179	24	246	15	35
March		213	22	201	22	22
April		257	8	276	11	25
May		147	16	289	20	22
June		188	38	319	87	19
July		369	36	223	18	22
August		333	28	531	11	11
September		55	50	104		7
October		118	59	376	12	4
Totals		2,469	401	3,513	257	228

		Canning Factories.	*Slaughter Houses.*	*Meat Markets.*	*Butter Stores.*	*Creameries.*
November	1912	7	17	1	5	
December	1912		20		13	3
January			18	23	4	2
February		1	16	8		5
March			29	14	8	3
April			107	17	5	2
May		2	88	4	6	4
June		25	44	16		2
July		29	51	21		
August		81	37	24	2	1
September		114	20	14		1
October		36	18	5	1	2
Totals		295	465	147	34	25

		Bakeries.	*Pickling Establishments.*	*Oyster Shucking Houses.*	*Clam Houses.*
November	1912		1		
December	1912	2	9		
January	1913				
February				33	
March		3			26
April		1		1	5
May		2			
June		17	1		
July					
August		2			
September		1			
October		2			
Totals		30	11	34	31

TABLE 9. (Continued).

		Oyster Markets.	*Confectionery Stores.*	*Restaurants.*	*Delicatessen Stores.*
November	1912				
December	1912				
January	1913				
February		18	6		
March		6	1		
April			2		
May			5		
June			10		
July			3	8	
August			26	12	2
September			12	71	2
October			8		
Totals		24	73	91	4

		Dairy Farms.	*Egg Investigations.*	*Milk Cans.*	*Miscellaneous Inspections.*
November	1912		9		
December	1912				14
January	1913				2
February					4
March			2	160	8
April		3		650	2
May		38		450	13
June			3		
July					
August			1		
September				500	5
October					6
Totals		41	15	1760	54

INSPECTION OF SLAUGHTER HOUSES.

Perhaps the most important requirements for a good meat inspection service is a well operated slaughter house. Since the passage of the Slaughter House Act in 1910, the State Board of Health has been attempting to secure better and cleaner slaughter houses.

During the year, 465 inspections have been made of various slaughter houses known to be operating in the state. Many of these inspections were made of slaughter houses not yet operating under a license, and of certain other places, which, although licensed, were known to need attention. Many complaints were received during the year, relative to slaughter houses and diseased meat and these have also been investigated.

It is now believed that applications have been made by all persons operating slaughter houses in this state, who are desirous of securing a license.

A list of those persons known to be operating slaughter houses during the year is given in the following table:

TABLE 10.—SHOWING THE LOCATION AND CONDITION OF SLAUGHTER-HOUSES.

Location.	Operator.	Licensed.	License Refused.	License Revoked.	Condition at time of last inspection.	Operating under orders from the Board.
Atlantic County:						
Atlantic City	F. W. Bright	yes	......	......	good	......
Atlantic City	Siracusa & La Rosa	yes	......	......	good	......
Atlantic City	Jesse Taylor Co.	yes	......	......	fair	yes
Egg Harbor	Geo. Obergfell	yes	......	......	good	......
Egg Harbor	Wm. Obergfell	......	yes	......	bad	......
Egg Harbor	Fred Schwenger	yes	......	......	good	......
Folsom	Jacob Eckhardt	......	yes	......	bad	......
Hammonton	Joe Lucca	yes	......	......	good	......
Hammonton	Rocco Rubertone	yes	......	......	good	......
Hammonton	Catherine Russo	yes	......	......	good	......
Bergen County:						
Lodi	Christopher Davis	......	yes	......	bad	......
Tenafly	Samuel Saibin	yes	......	......	bad	yes
Burlington County:						
Bridgeboro	Wm. F. Kanderer	yes	......	......	good	......
Columbus	R. B. Kerlin	yes	......	......	good	......
Columbus	Albert Price	yes	......	......	good	......
Columbus	Chas. Schrieber	yes	......	......	good	......
Cookestown	William L. Stevens	yes	......	......	good	......
Crosswicks	Zedikiah McCabe	yes	......	......	good	......
Crosswicks	W. Satterthwaite	yes	......	......	good	......
Jobstown	George Mantel	yes	......	......	good	......
Marlton	Wilmer Bell	......	yes	......	bad	......
Marlton	Lidia S. Chew	yes	......	......	good	......
Medford	Robert Henderson	yes	......	......	good	......
Medford	Daniel N. Lamb	......	yes	......	bad	......
Medford	Harry Reeve	......	yes	......	bad	......
Mount Holly	John Jobes	yes	......	......	good	......
Mount Holly	John Worth	yes	......	......	good	......
Pemberton	Henry Mantel	yes	......	......	good	......
Riverside	Jacob Lusch	yes	......	......	good	......
Riverside	Wm. Sarstadt	yes	......	......	good	......
Vincentown	Geo. R. Abrams	yes	......	......	good	......
Vincentown	Eugene O. Haines	yes	......	......	good	......
Camden County:						
Berlin	J. F. Henderson	yes	......	......	good	......
Camden	Fred Banshoff	yes	......	......	good	......
Camden	D. D. Helms	yes	......	......	good	......
Camden	Leonard Hoffman	yes	......	......	good	......
Camden	W. Mills & Bro.	......	......	......	bad	yes
Camden	Schlorer & Zink	yes	......	......	good	......
Grenloch	E. G. Firth	yes	......	......	good	......
Haddonfield	I. Ellis & Son	yes	......	......	good	......
Kirkwood	Raymond Henderson	yes	......	......	good	......
Camden County:						
Lindenwald	Wm. C. Cammer	yes	......	......	good	......
Lindenwald	Henry Stuebing	yes	......	......	good	......
Cape May County:						
Cape May City	J. B. McPherson	yes	......	......	good	......
Cape May Ct. House	J. S. Willis	......	yes	......	bad	......
Erma	F. E. Platt	yes	......	......	good	......
Rio Grande	Mrs. E. M. Harris	yes	......	......	good	......
Rio Grande	Warren M. Harris	yes	......	......	good	......
Woodbine	Woodbine Beef Co.	......	yes	......	bad	......

TABLE 10.—SHOWING THE LOCATION AND CONDITION OF SLAUGHTER-HOUSES. (Continued)

Location.	Operator.	Licensed.	License Refused.	License Revoked.	Condition at time of last inspection.	Operating under orders from the Board.
Cumberland County:						
Bridgeton	Jacob Fisher	yes			good	
Bridgeton	Oscar L. Hitchner	yes			good	
Bridgeton	Thos. W. Platt				bad	yes
Bridgeton	W. H. Silverman	yes			good	
Bridgeton	Leslie Souder	yes			good	
Bridgeton	Charles Weber	yes			good	
Carmel	Harry Cotlar	yes			good	
Deerfield	Thomas M. Tice	yes			good	
Greenwich	Andrew Wheaton	yes			good	
Mauricetown	A. L. Nichols	yes			good	
Mauricetown	Theodore Fisher	yes			good	
Millville	V. Schlacter	yes			good	
Millville	Whitall Tatum Co.	yes			good	
North Vineland	Wm. Shoemaker		yes		bad	
Rosenhayn	H. Venesky & Sons	yes			good	
Shiloh	W. G. Allen	yes			good	
Shiloh	John J. Dixon	yes			good	
Vineland	Wm. Burtch	yes			good	
Vineland	C. V. Marshall		yes		bad	
Essex County:						
Newark	Beck & Canfield	yes			good	
Newark	John Englehorn	yes			good	
Newark	Simon Hauser & Sons	yes			good	
Newark	Emil Kohn	yes			good	
Newark	Maybaum & Sons	yes			fair	
Newark	Schloss, Held, Schloss	yes			good	
Caldwell	Chris Sengling	yes			good	
Gloucester County:						
Bridgeport	H. McGlincy	yes			good	
Ewan	Benj. Carr	yes			good	
Harrisonville	John W. Riley	yes			good	
Mullica Hill	Wilmer Du Bois	yes			good	
National Park	Lents Bros.	yes			good	
Paulsboro	Joseph Bailey		yes		bad	
Sewell	Oscar Carter	yes			good	
Sewell	Henry B. Evans	yes			good	
Swedesboro	Theodore Miller	yes			good	
Pitman	G. W. Kersey	yes			good	
Williamstown	Mrs. J. Suter	yes			good	
Hudson County:						
Guttenberg	Fisher & Co.				fair	yes
Jersey City	Jersey Stock Yards Co.				bad	yes
Jersey City	Nagle Packing Co.				fair	yes
Kearny	Bimbler & Van Wagenen	yes			good	
Kearny	Swift & Co.	yes			good	
Secaucus	Chas. Miller & Co.	yes			good	
Hunterdon County:						
Bloomsbury	James C. Hummer	yes			good	
Califon	Samuel R. Neigh	yes			good	
Clinton	J. V. Aller	yes			good	
Clinton	S. G. Lunger	yes			good	
Everittstown	Harry Warner	yes			good	
Hampton	Jacob S. Alpaugh	yes			good	
Flemington	H. Danly & Son		yes		bad	
Flemington	Jacob Hendershot	yes			good	
Flemington	Garret Rynearson	yes			good	
Frenchtown	L. M. Hoffman	yes			good	

TABLE 10.—SHOWING THE LOCATION AND CONDITION OF SLAUGHTER-HOUSES. (Continued)

Location.	Operator.	Licensed.	License Refused.	License Revoked.	Condition at time of last inspection.	Operating under orders from the Board.
Frenchtown	S. Frank Opdyke	yes			good	
Holland	Chas. Ulmer		yes		bad	
Lebanon	Edward Drake	yes			good	
Milford	Elmer E. Culver	yes			good	
Mt. Pleasant	Robbins & Hoppock		yes		bad	
Pattenburg	John S. Gano	yes			good	
Pittstown	S. R. Reed	yes			good	
Ringoes	U. G. Hartpence	yes			good	
Ringoes	R. H. Hill	yes			good	
Sergeantsville	J. J. Rittenhouse	yes			good	
Stockton	Wm. Durling	yes			good	
Three Bridges	Joseph R. Dilts				bad	yes
Mercer County:						
Hopewell	Andrew Wyckoff		yes		bad	
Pennington	George Atwood	yes			good	
Princeton	Wm. H. Hahn	yes			good	
Trenton	C. W. Armstrong	yes			fair	
Trenton	Geo. Ballner	yes			good	
Trenton	August Brodbeck	yes			fair	
Trenton	Wm. Dabelstein	yes			good	
Trenton	Joseph Feldenser	yes			good	
Trenton	John Hartman, Jr.	yes			good	
Trenton	A. Horhovits	yes			good	
Trenton	Jacob L. Kafes	yes			good	
Trenton	Fred Ketterer	yes			fair	
Trenton	Israel Meltzer	yes			fair	
Trenton	Charles S. Parker	yes			good	
Trenton	Samuel Rosenthal	yes			good	
Trenton	Frank Sensi	yes			good	
Trenton	Charles Wagner	yes			good	
Trenton	Gustave Wagner	yes			good	
Trenton	Wagner & Meyers	yes			good	
Trenton	Fred Weckerlein	yes			good	
Windsor	W. A. Girton	yes			good	
Middlesex County:						
Cranbury	Charles W. South	yes			good	
Cranbury	E. C. Wilson	yes			good	
Jamesburg	C. Mount		yes		bad	
Milltown	William Glock	yes			good	
Milltown	Martin Muller		yes		bad	
Monmouth Junction	Wm. Van Dyke	yes			good	
New Brunswick	Samuel Lederer & Son	yes			bad	yes
Perth Amboy	Max Fogel	yes			good	
Perth Amboy	A. Wertheim	yes			good	
Sayreville	Sayre & Fisher	yes			good	
Spottswood	Joseph Hodapp	yes			good	
Spottswood	Michael Nisinoff	yes			bad	yes
Monmouth County:						
Allentown	J. H. Pierce		yes		bad	
Asbury Park	Morris Hess	yes			good	
Asbury Park	Asher White	yes			fair	
Belmar	Samuel Silverstein	yes			fair	
Eatontown	Joseph Miller	yes		yes	fair	
Englishtown	Clayton Palmer	yes			good	
Englishtown	David R. Richmond	yes			fair	
Freehold	Joseph Ruda	yes			good	
Freehold	Sagotski Bros	yes			good	
Freehold	William Southard	yes			good	
Freehold	Zlotkin & Berkowits	yes			good	

TABLE 10.—SHOWING THE LOCATION AND CONDITION OF SLAUGHTER-HOUSES. (Continued)

Location.	Operator.	Licensed.	License Refused.	License Revoked.	Condition at time of last inspection.	Operating under orders from the Board.
Howell	David Errickson	yes			good	
Matawan	Frank Linsmayer	yes			good	
Oceanport	L. Shapiro	yes			good	
Red Bank	Travonia Bennett	yes			good	
Shrewsbury	F. Marx	yes			good	
Tennent	Samuel Zlotkin	yes			good	
Tinton Falls	Harry Coleman	yes			good	
Tinton Falls	Albert Crawford	yes			good	
Morris County:						
Dover	John B. Richards		yes		bad	
Flanders	Harry Reed	yes			good	
German Valley	Bert Flemming	yes			good	
German Valley	George Lance	yes			good	
Green Village	John Weber	yes			good	
Mendham	Charles H. Day	yes			good	
North Caldwell	F. J. Francisco		yes		bad	
Stirling	J. M. Holmes	yes			good	
Ocean County:						
New Egypt	Samuel Robbins	yes			good	
Passaic County:						
Fairlawn	Samuel Berkman	yes			good	
Hawthorne	W. A. Steiginga		yes		bad	
Passaic	Joseph Feld	yes			good	
Paterson	D. Fullerton Co.	yes			good	
Paterson	Paul Mesey	yes			good	
Paterson	Henry Muhs	yes			good	
Totowa	Max Levenstein	yes			good	
Salem County:						
Alliance	Isaac Steinsnyder	yes			good	
Alloway	John W. Dunham	yes			good	
Alloway Junction	Lewis Krechmer		yes		bad	
Elmer	Abraham Bolnick	yes			good	
Elmer	Jacob Lavine	yes			good	
Monroeville	Eugene MacFarland	yes			oood	
Norma	Lewis Fisher	yes			good	
Salem	Wm. Burkhardt	yes			good	
Salem	Salem Supply Co.	yes			good	
Salem	J. H. Stretch	yes			good	
Woodstown	Dixon & Moncrief	yes			fair	
Somerset County:						
Bellemeade	Edgar Cain	yes			good	
Bellemeade	H. Fransberger	yes			good	
Martinsville	Frederick Dealaman	yes			good	
Martinsville	John F. Mundy	yes			good	
Martinsville	John Van Nest	yes			good	
North Branch	Frank C. Williams		yes		bad	
Peapack	Chas. Ludlow	yes			fair	
Somerville	George Anton	yes			good	
Somerville	Edward Kinsey	yes			good	
Warrenville	George Dealaman	yes			good	
Watchung	John Burnet	yes			good	
Sussex County:						
Andover	Andrew R. Dobbins	yes			good	
Branchville	J. A. Johnson	yes			good	
Branchville	M. H. Reed	yes			good	
Glenwood	W. Forshee	yes			good	

TABLE 10.—SHOWING THE LOCATION AND CONDITION OF SLAUGHTER-HOUSES. (Continued)

Location.	Operator.	Licensed.	License Refused.	License Revoked.	Condition at time of last inspection.	Operating under orders from the Board.
Hamburg	Herman Excelrod	yes			good	
Hamburg	Harry Reed		yes		bad	
Lafayette	Frank Lockburner	yes			good	
Lafayette	F. M. Pellett	yes			good	
Lafayette	Henry Wernlein	yes			good	
McAfee	Chas. B. Sammis	yes			bad	yes
Middleville	John Gaal	yes			bad	
Newton	Casper Grover	yes			good	
Newton	E. P. Kishpaugh	yes			fair	
Newton	L. Lehman & Co.	yes			good	
Newton	Losey Brothers		yes		bad	
Newton	Wm. Vickery	yes			good	
Quarryville	M. S. Rogers	yes			fair	
Sussex	John Beddell	yes			good	
Sussex	Wm. H. Johnson		yes		fair	
Sussex	L. D. Johnson	yes			good	
Tranquility	George Lewis	yes			good	
Union County:						
Elizabeth	Max Charles	yes			fair	
Elizabeth	Charles Feldman	yes			fair	
Linden	Cohen & Berman	yes			good	
Plainfield	Julius Vilinsky	yes		yes	bad	
Rahway	Ritter Bros	yes			fair	
Roselle Park	John C. Bender		yes		bad	
Warren County:						
Asbury	Edgar Smith	yes			good	
Asbury	James Riddle	yes			good	
Belvidere	W. P. Hoff	yes			good	
Belvidere	G. J. Richards	yes			good	
Blairstown	John C. Brands	yes			good	
Buttsville	Harvey Folkner	yes			good	
Columbia	Frank Brands		yes		bad	
Hackettstown	George Heuber	yes			good	
Hackettstown	Klotz & Ackley	yes			good	
Hackettstown	Rice & Deremer	yes			good	
Hainesburg	George Rice	yes			good	
Hainesburg	Ogden C. Brands	yes			good	
Hope	Charles Westbrook	yes			good	
Marksboro	John Kishpaugh		yes		bad	
Marksboro	Wm. A. Van Horn		yes		bad	
New Village	S. F. & H. D. Rush	yes			good	
Phillipsburg	Wilson Kroner	yes			good	
Phillipsburg	S. J. Stammets	yes			good	
Stewartsville	Frank B. Bailey		yes		bad	
Vienna	John Lomosson	yes			good	
Vienna	Lewis E. Merrill		yes		bad	
Vienna	Edward Morgan	yes			good	
Washington	Hance Brothers	yes			good	
Washington	William Mowder	yes			good	
Washington	E. W. Nunn				bad	yes
Washington	Clark Shafer & Son	yes			good	

TABLE 11. SHOWING THE NUMBER OF INSPECTIONS AND GENERAL CONDITION OF SLAUGHTER-HOUSES THROUGHOUT THE STATE.

Total number of slaughter-houses operating during the year......	257
Total number of inspections during the year......................	465
Total number of licenses issued during the year...................	120
Total number of licenses issued previous to this year............	97
Total number of slauhter-houses operating under licenses.........	217
Total number of applications for licenses which have been refused, during the year..	32
Total number of licenses revoked during the year.................	2
Total number of plans submitted and approved during the year....	5

The above tabulated list does not include those places for which licenses were refused previous to this year. Neither does the table include farmers who may slaughter animals raised by themselves. It also does not show small dealers who slaughter animals occasionally, in small numbers on the farms where these animals are purchased.

During the year, 32 applications for licenses have been refused; 6 operators are now under instructions to make improvements to obtain licenses, and 217 slaughter houses are now operating under licenses from the State Board of Health. A considerable number of the 217 slaughter houses are also under instructions to correct unsanitary conditions found to exist upon reinspection and after licenses had been granted. At some places, for which licenses were refused last year, reinspections this year have shown that they were operating in open defiance of law. When sufficient evidence could be obtained to show that the Slaughter House Act was being violated, the facts were referred to the Attorney General for prosecution.

In enforcing the provisions of the Slaughter House Act, all recommendations which have been made to operators have been based upon the location, construction and equipment of the slaughter house, the number of animals slaughtered, and the mode of operation. In every instance, recommendations have been made to correct the defects existing at the time of inspection. It has been the practice to fix a reasonable time limit within which persons must comply with the recommendations. Many of the old slaughter houses have been completely remodeled, and a number of new and modern slaughter houses have been built since the enactment of the law.

During the past year, 5 sets of plans and specifications for slaughter houses have been submitted and approved by the State Board of Health. It is recommended that all persons contemplating the construction of slaughter houses submit their plans for approval. By this process, a much better understanding is had, which usually results in the saving of time and expense.

Experience has demonstrated that, in order to keep most of the slaughter houses in a sanitary condition, it is necessary to make frequent reinspections. A few days' neglect on the part of the operator of the slaughter house may result in the accumulation of decomposed and disease laden materials, thereby rendering the place unfit for the handling of meats intended for food.

It has been shown that the ordinary uninspected slaughter house, as a rule, has many features that are not only objectionable, but may be dangerous to health. As previously stated, even those places which have improved to such an extent as to secure a license, need constant reinspection. It thus can be seen, in order to effectively carry on this work, that more men are needed than the one inspector which we now have. This work can best be done by a veterinarian, and is especially important at this time, inasmuch as no comprehensive system of meat inspection exists in this state.

MEAT INSPECTION.

During the year, our investigations have shown that large numbers of animals, which are diseased and unfit for food, are still slaughtered and sold for food purposes in the state. A list of carcasses inspected and condemned by our slaughter house inspector is shown in the following table:

TABLE 12.—SHOWING THE NUMBER AND KINDS OF CARCASSES INTENDED FOR FOOD PURPOSES PASSED AND CONDEMNED DURING THE YEAR.

MONTH.	BEEF.		PORK.		VEAL.	
	Passed.	Condemned	Passed.	Condemned	Passed.	Condemned
November, 1912	11	2	......	......	18	3
December, 1912	19	3	14	3	30	2
January, 1913	2	......	40	1	2	2
February, "	2	1	151	9	12	6
March, "	3	1	11	8	2	3
April, "	6	1	47	......	76	......
May "	1	......	30	......	26	......
June "	1	......	......	......	48	1
July, "	24	2	3	......	10	......
August, "	4	......	......	......	2	......
September, "	......	......	......	......	......	2
October, "	......	......	1	......	62	1
Totals	73	10	297	21	288	20
Grand totals	83		318		308	

These inspections do not represent any attempt at systematic meat inspection, but are the results of co-operative work with local boards of health and representatives of the United States Bureau of Animal Industry. A survey of the table will show that several carcasses were condemned, which were affected with tuberculosis, and that several hogs, infected with cholera, were also destroyed.

The sale of diseased and unwholesome meat is not confined to the small dirty meat shop, but such meat is frequently found offered for sale in some of our best meat markets.

It is perhaps well known that dairying in this state is an important industry. This leads to the sale of many emaciated dairy cows, and many of these cows, which ultimately find their way to market, are badly infected with tuberculosis. As might be expected in any large milk producing section, many calves are produced. Experience has shown that large numbers of these calves are offered for sale when less than 4 weeks of age. The inspection of meat, as to disease and fitness as an article of food, has received little attention in this state. For several years, state and municipal inspection of meats has been advocated.

There is perhaps no state in the Union which is more in need of a comprehensive system of meat inspection than New Jersey, and only when we have municipal centralized slaughter houses, can much be accomplished in this direction.

COLD STORAGE.

In recent times, the concentration of large numbers of people within narrow limits has produced many problems perplexing from a public health standpoint. One of these problems is to conserve various perishable articles of food from seasons of plenty to seasons of scarcity in such a manner that the food may reach the consumer in a wholesome condition, and at a price within the means of the masses. The erection of large public warehouses, which are artificially cooled to temperatures ranging from—10°F. to 40°F., makes it possible for certain perishable foods, such as eggs, butter, poultry, fresh meats and fish, to be kept for periods of eight or ten months.

In order that foods may be in a wholesome condition when removed from storage, care must be exercised that their quality and condition, at the time of entrance into storage, is of the best, and that decomposition has not begun. In addition, the warehouse must be maintained in a sanitary condition, and no marked variations in temperature should take place during the period of storage.

During the past year, 228 inspections have been made to ascertain whether the provisions of Chapter 189 of the Laws of 1911 have been carried out. At the large public warehouses of Jersey City and Newark, inspections have generally been made once a week. At the smaller warehouses throughout the state, inspections have usually been made monthly or oftener.

As a result of these inspections, it has been found that the warehouse men conducting the large public warehouses use considerable care to keep the storage rooms and buildings in a sanitary condition at all times. All rooms used for the storage of eggs are treated annually with whitewash on the floors, ceilings and sidewalls. Elevator shafts and ante-rooms are also kept painted. The ice which forms on the brine pipes is removed at frequent intervals. In many cases, metallic pans are suspended beneath these pipes to prevent the dripping of water or of brine upon the floor.

A considerable proportion of the foodstuffs now placed in storage consists of fancy and selected articles especially packed for storage. Certainly, much greater care is exercised at the present time than formerly to prepare foodstuffs for storage, and to transport them to warehouses without material changes in condition. It may be of interest to state briefly the manner in which the different articles of food are prepared for storage.

Eggs are shipped from the West or South in refrigerator cars. In course of transit, many eggs become cracked or broken. In order that eggs may be stored successfully, it is necessary to repack these eggs, removing all the cracked or leaking ones. New pasteboard "fillers" must also be substituted for those which have been soiled by broken eggs. If these leaking eggs and soiled "fillers" are not removed, mould grows and readily spreads to other eggs in the same case. In the repacking of these eggs, the cracked ones are removed from the cold storage warehouse, and immediately placed upon the market for sale to bakers. The leaking eggs are either discarded entirely, or are broken out into tin cans at the time of repacking.

A table showing the names and locations of all cold storage plants, together with the kinds of foods stored, the capacity of the warehouse, the method of refrigeration, and the condition of the warehouse at the time of inspection, follows:

TABLE 13.—SHOWING THE NAMES AND LOCATIONS OF COLD STORAGE PLANTS, THE KINDS OF FOODS STORED, THE CAPACITY OF THE WAREHOUSE, THE METHOD OF REFRIGERATING AND THE CONDITION OF THE WAREHOUSE AT THE TIME OF INSPECTION.

Cold Storage Warehouses.	Location.	Foods Stored.	Capacity of Warehouse.	Refrigeration.	Condition of Warehouse.
Arctic Ice & Cold Storage Co.	Bridgeton.	Apples.	25,000 cu. ft.	Direct brine.	Good.
Block Ice & Cold Storage Co.	Manasquan.	Fresh Fish.	78,565 cu. ft.	Direct brine.	Good.
Bridgeton Condensed Milk Co.	Salem.	Apples.	10,000 cu. ft.	Direct brine.	Good.
A. T. Connet Co.	Flemington.	Eggs.	8,800 cu. ft.	Ice.	Good.
Joseph Campbell Co.	Camden.	Meats and fruits.	27,335 cu. ft.	Direct brine.	Good.
Droste & Snyder.	Paterson.	Cheese, butter and poultry.	3,000 cu. ft.	Direct brine.	Good.
Eastern States Refrigerating Co.	Jersey City.	Eggs and green fruits.	700,000 cu. ft.	Direct brine.	Good.
D. P. Forst & Co.	Trenton.	Butter and groceries.	9,000 cu. ft.	Direct brine.	Good.
Albert Hansell.	Burlington.	Apples and pears.	26,000 cu. ft.	Direct brine.	Good.
J. Clark Helms.	Swedesboro.	Poultry.	2,600 cu. ft.	Direct brine.	Good.
Holly Beach Cold Storage Co.	Holly Beach.	Fresh fish.	13,500 cu. ft.	Direct brine.	Fair.
Holcomb & Wilson.	Trenton.	Fruits, butter and eggs.	5,000 cu. ft.	Direct brine.	Good.
Marine Freezing Co.	Anglesea.	Fresh fish.	20,000 cu. ft.	Direct brine.	Good.
Merchants Refrigerating Co.	Jersey City.	All foods.	3,000,000 cu. ft.	Direct brine.	Good.
Merchants Refrigerating Co.	Newark.	All foods.	500,000 cu. ft.	Direct brine.	Good.
Monmouth Beach Fish Co.	Monmouth Beach.	Fish.	9,000 cu. ft.	Direct expansion.	Good.
Henry Muhs Co.	Paterson.	Meats and fruits.	2,500 cu. ft.	Direct brine.	Good.
North Newark Cold Storage Co.	Newark.	All foods except fresh fish.	100,000 cu. ft.	Direct brine.	Good.
John Reppe Ice & Cold Storage Co.	Glassboro.	Apples.	9,000 cu. ft.	Direct brine.	Good.
Riverton Ice & Cold Storage Co.	Riverton.	Apples.	150,000 cu. ft.	Direct brine.	Good.
Joseph R. Shimer Co.	Phillipsburg.	Meats and fruits.	27,000 cu. ft.	Direct expansion.	Good.
Hotel Strand.	Atlantic City.	Meats, fruits and fish.	....	....	Good.
Swift & Co.	Jersey City.	Fresh meats.	205,200 cu. ft.	Direct brine.	Good.
Union Terminal Cold Storage Co.	Jersey City.	Eggs, green fruits & meats.	1,500,000 cu. ft.	Indirect brine with fans.	Good.
Wilkinson-Gaddis Co.	Newark.	Eggs, butter and cheese.	114,000 cu. ft.	Direct brine.	Fair.
Woodstown Ice & Cold Storage Co.	Woodstown.	Apples.	25,000 cu. ft.	Direct brine.	Good.

Most of the poultry is killed and packed for storage in the South and West, and is stored undrawn. This is not an ideal practice, but one which seems to give satisfactory results from a practical standpoint. Two methods of packing poultry for storage are, however, in common use in this country. In th case of choice goods, each fowl is wrapped in a separate piece of paper and packed in boxes holding from one to three dozen. Such preparation slightly increases the cost to the consumer. Another practice is to pack poultry in barrels without wrapping each bird. The first method enables the poultry to be removed from the container without injury to its appearance, and seems to give uniformly good results.

The recent removal of the tariff upon meats has resulted in the storage of large quantities of meats from Argentine Republic in warehouses of this state. This meat is wrapped in cheesecloth, or in a double covering of cheesecloth and burlap. Each piece of meat is stamped at the time of slaughter, and is again inspected at arrival in this country by agents of the Bureau of Animal Industry. Small pieces of meat, such as pork loins and livers, are packed in boxes. Formerly, the quarters and carcasses of meats were stored loosely in piles upon the floor. At the present time, meats are generally hung upon hooks. Such a practice enables the warehouse men to remove any of the meat without much handling, promotes cleanliness and economizes space.

At various points along the coast of New Jersey, warehouses have been constructed for the storage of fish. In every instance, these warehouses have been built with the intention of storing fish only, and have been located near the shore. In each case, the fish arrive at the warehouse soon after they have been taken from the water. Upon arrival at the warehouse, the fish are washed in fresh water and placed in shallow pans. These pans of fish placed in a "sharp" freezer at a temperature of 0° F., for a period ranging from 24 to 48 hours. At the end of this time, the cakes of fish are dipped in tubs of fresh water placed in the freezer, in order to freeze a thin coating of ice over the entire surface of the cake. The cakes are then placed in boxes having the original date of freezing stamped upon them. A temperature not higher than 10° F. is maintained during the period of storage. At the time of shipment, the cakes are temporarily removed from the boxes, and a second coating of ice is frozen over the surface. The fish are shipped in the original boxes in refrigerator cars.

The following summaries show the amounts of foods held in warehouses of this state, as submitted by warehouse men in accordance with law, during the years of 1912 and 1913.

TABLE 14.—COMPARISON OF QUARTERLY REPORTS OF FOODS HELD IN COLD STORAGE DURING THE YEARS 1912 AND 1913.

Article	Reported as	Jan. 1, 1912.	Jan. 1, 1913.	Apr. 1, 1912.	Apr. 1, 1913.	July 1, 1912.	July 1, 1913.	Oct. 1, 1912.	Oct. 1, 1913.
Eggs.	Dozens.	4,135,560	7,296,480	9,180	61,710	22,057,290	16,610,340	21,435,480	13,519,440
Eggs, broken.	Pounds.	166,359	108,289	10,050	23,510	42,690	95,020	193,120	155,132
Butter.	Pounds.	1,605,270	1,074,106	490,985	172,491	4,114,874	3,991,808	6,465,385	6,044,799
Cheese.	Pounds.	54,520	225,072	14,729	44,264	75,209	158,699	595,528	242,052
Poultry.	Pounds.	3,195,487	4,357,507	4,372,926	4,025,759	3,521,708	2,017,239	1,510,422	1,885,968
Meat, fresh.	Pounds.	2,145,321	1,970,773	3,197,831	2,523,361	2,400,783	2,910,522	1,518,551	1,471,750
Meat, salt.	Pounds.	31,803	9,295	792,452	195,386	125,414	107,824	90,003	223,653
Fish, fresh.	Pounds.	45,905	1,484,317	84,394	203,525	640,168	704,618	1,101,624	1,141,745
Fish, smoked.	Pounds.	....	....	....	13,200	1,319	194,550	3,097	437,700
Fruits, dried.	Pounds.	2,901	40,050	3,300	12,845	206,226	413,499	114,720	245,311
Nuts.	Pounds.	....	....	....	15,290	98,541	69,899	93,783	30,916
Fruits, green.	Packages.	322,158	341,997	102,219	67,592	2,631	2,422	112,677	52,407
Vegetables, green.	Packages.	74	3,891	56,600	5,046	334	1,102	633	6,676
Miscellaneous.	Packages.	3,708	2,871	6,160	2,875	2,961	6,436	7,497	3,467

From this table, it may be seen that the amounts of foodstuffs in cold storage remain relatively constant for the same period of the year. It is seen that the quantity of eggs in storage as reported in October, 1913, is very much less than that reported in October, 1912. This may account, in part, for the increase in the cost of eggs. It may be that speculation in food products exists, which may increase their final cost to the consumer. This phase of the Cold Storage Industry is purely an economic one, and is not covered by Chapter 189 of the Laws of 1911, and is, therefore, not a matter for investigation by the State Board of Health.

Our inspections have shown that the provision, requiring the date of entrance into storage to be placed upon the article, or upon the container in which it is packed, has been observed by the warehouse men. Examinations have been made at frequent intervals, of representative samples of foodstuffs at the time of entrance into storage. These inspections show that the greater proportion of the food, at the time of entrance into storage, was of good quailty. Similar examinations of representative samples of foodstuffs, at the time of removal from storage, have shown that eggs, butter, cheese, poultry, fresh meats and fish may be held for a period of ten months or longer and still be fit for food purposes.

Several requests for an extension of time of storage have been made. The reasons given in these requests have generally been the failure to dispose of the product at a satisfactory price. All such requests have been refused, as it has been deemed against the intent of the Cold Storage Law to grant such a request. As a result of these refusals, large quantities of butter, poultry and fish have been forced upon the market. A general understanding that no extension of time of storage would be granted, without a satisfactory reason for such an extension, has resulted in the removal from storage of large quantities of eggs, butter, meat, poultry and fish, which have been in storage for a period longer than ten months.

During the past year, condemnations have been made of several lots of poultry, pork loins and broken eggs. In every case where these products were found to be decomposed, they were destroyed. Condemnations of this character emphasize the fact that all foodstuffs should be of good quality when they are placed in cold storage. Until it is learned by producers that all products intended for storage must be handled and packed under cleanly conditions, condemnations of the above character will be necessary

Experience gained in the enforcement of the Cold Storage Act has shown that the law would be much more effective if amended so as to require that all foods, or package containing them, be marked with the date when they are removed from storage, and further changed so as to make it compulsory for cold storage operators to submit monthly reports of goods held in cold storage to the State Board of Health. The present penalty section of the Cold Storage Act is badly drawn, and is defective in that no method for collecting the penalty is provided, and on one is designated to collect it. It might also be desirable to give the State Board of Health power to close a warehouse, if, in its judgment, food cannot be properly stored therein because of its construction. A further provision, requiring that all goods which have been in cold storage be so marked, should also be added.

CANNING FACTORIES.

The canning industry is an important one in this State. There are seventy-seven canning factories employing, during the busy season, about seven thousand persons, and canning a wide variety of products, the principal one of which is tomatoes.

About three years ago, the first systematic investigation of the conditions under which canned foods were prepared was commenced. Inspections were made of a number of the canning factories and it was found that while, in general, the quality of of the product packed was good, yet, from a sanitary standpoint, the condition of many of the canning factories, was far from satisfactory. Dirty factories were found and factories provided with inadequate, antiquated and ill-cared-for machinery. In some instances, the use of inferior raw material was noticed, and in many cases the raw material was not sufficiently sorted and cleansed to assure the cleanliness of the finished product. The Board, believing that the best results could be secured by getting the co-operation of the canners, called a conference, which was held in Trenton, and which was largely attended by representatives of the industry. At this conference, many of the problems relating to the canning of foodstuffs were discussed at length, and as a result, the Board formulated a set of tentative rules intended to control the canning of all foods, but particularly the canning of tomatoes. These rules were discussed at a later conference held with the canners. This discussion was particularly enlightening, both to the canners and the Board, and it was found that the tentative rules required considerable modificaton before they could be made operative. These modifications were made, and the rules were finally adopted on April 29, 1912. They provide, in a general way, for cleanliness in the factories, cleanliness on the part of the employees, and care in the selection and cleansing of the raw materials and in the preparation of the finished products. These rules were printed and copies of them distributed to all the canners, and our inspections, during the canning season last year, showed that most of the factories had improved their conditions to a considerable extent. Much, however, needed to be done, and, in order to secure still further improvement, another conference was held early in the present year, at which time it was explained to the canners that they would be expected to make such changes in their factories and in their mode of operation as would enable them to conform with these rules before the beginning of the canning season.

During the present year, 295 inspections of canning factories have been made. The result of these inspections shows that many improvements have been made in almost all the canning factories of this State. There has been a decided effort on the part of the canners to keep the exterior surroundings of the factories clean as well as the interior.

By reference to the table, it can be seen that of the seventy-seven factories, forty-four have wood floors, twenty-nine cement and four, brick or stone. These floors were found to be kept in a much cleaner condition than in any previous year. An ample supply of running water was found at many factories, with well placed and convenient outlets.

The methods of washing, sorting and handling stock were found to be more satisfactory than ever before. This is particularly gratifying because only by careful washing and sorting can a good sound, clean product be obtained.

Tomato pulp is manufactured at twenty-two factories both from whole tomatoes and skins and cores. As stated in a previous report, there can be no objection to the utilization of skins and cores in pulp making, provided they are obtained from whole, sound tomatoes.

A considerable number of samples of pulp and similar products were collected and examined during the year. One hundred and twenty samples of tomatoes, representing seven hundred and twenty cans, were also examined by methods adopted by the Board and described in Circular 130. The results of the examinations of pulp are shown in the accompanying table. The results of the examinations of canned tomatoes show that the weights required by the rules were exceeded in almost every case. Experience has demonstrated, however, that this method is not a satisfactory one for the grading of canned tomatoes. About seven thousand persons are employed in the canning factories during the season. Of this number, about forty-five hundred are women and twenty-five hundred men. Of the total number employed, approximately two thousand are foreigners, principally Italians.

Bunk houses are provided by many of the canners to house their foreign labor. In former years, the conditions under which these people lived in these houses were deplorable, but there has been a great improvement, although the present condition of these places is not altogether satisfactory.

TABLE 16—BACTERIOLOGICAL EXAMINATION OF TOMATO PRODUCTS.

OWNER.	LOCATION.	Product Examined.	Sample Number	Yeasts and spores per one sixtieth cubic centimeter.	Average per cent. fields showing molds.	Bacteria per cubic centimeter.
Alloway Packing Co.	Alloway	Paste	L-3714	8	2	26,400,000
Alloway Packing Co.	Alloway	Paste	L-3715	3	2	28,800,000
Alloway Packing Co.	Alloway	Paste	A-1122	3	2	40,800,000
B. S. Ayars Son & Co., Recrs	Bridgeton	Catsup	L-1451	4	4	28,800,000
C. B. Ayars Canning Co.	Bridgeton	Puree	L-3720	4	11	24,000,000
C. B. Ayars Canning Co	Bridgeton	Puree	L-3857	3	5	20,400,000
Walter Baker	Bridgeton	Pulp	A-1177	0	6	16,800,000
Walter Baker	Bridgeton	Pulp	L-2437	4	8	31,200,000
Walter Baker	Bridgeton	Pulp	L-3721	4	6	36,000,000
Walter Baker	Millville Road	Pulp	A-1176	1	8	19,200,000
Garret Bergen Co.	Landisville	Pulp	L-2428	0	8	16,800,000
C. S. Bucklin	Phalanx	Pulp	A-1134	0	4	16,800,000
C. S. Bucklin	Phalanx	Pulp	L-3622	0	2	21,600,000
R. C. Chance's Sons	Mount Holly	Catsup	L-1839	0	6	19,200,000
R. C. Chance's Sons	Mount Holly	Catsup	L-2401	8	4	24,000,000
R. V. Crine Company	Morganville	Catsup	A-1140	10	16	28,800,000
R. V. Crine Company	Morganville	Catsup	L-2338	0	2	19,200,000
R. V. Crine Company	Morganville	Catsup	L-2339	0	2	19,200,000
R. V. Crine Company	Morganville	Catsup	L-2340	3	4	21,600,000
Edgar W. Davies	Leesburg	Chili	L-2432	0	2	12,000,000
Edgar W. Davies	Leesburg	Chili	L-3833	0	2	9,600,000
J. E. Diament Co.	Cedarville	Pulp	L-2447	0	2	16,800,000
J. E. Diament Co.	Tuckahoe	Pulp	L-2423	0	6	18,200,000
J. E. Diament Co.	Tuckahoe	Pulp	A-1104	0	4	19,200,000
Fogg & Hires Co.	Quinton	Pulp	A-1115	3	8	24,000,000
Fogg & Hires Co.	Quinton	Pulp	L-3707	0	8	14,400,000
Fort Stanwix Canning Co.	Glassboro	Pulp	A-1150	0	2	19,200,000
Fort Stanwix Canning Co.	Glassboro	Pulp	L-1848	10	12	21,600,000
Franco-American Food Co.	Jersey City	Pulp	A-1141	2	4	16,800,000
H. J. Heinz Company	Salem	Chili	L-1429	0	2	13,440,000
H. J. Heinz Company	Salem	Catsup	L-1430	0	2	21,600,000
H. J. Heinz Company	Salem	Pulp	L-3547	3	4	31,200,000
Samuel Kelty & Son	Quinton	Paste	A-1119	8	4	43,200,000
Samuel Kelty & Son	Quinton	Paste	L-3708	3	2	28,800,000
Samuel Kelty & Son	Quinton	Pulp	A-1120	8	4	36,000,000
Morris Canning Co.	Allentown	Pulp	A-1144	2	12	12,000,000
Harry L. Powers	Shrewsbury	Puree	A-1133	0	6	12,000,000
Harry L. Powers	Shrewsbury	Puree	L-3609	0	12	12,000,000
E. Pritchard	Bridgeton	Catsup	L-3716	0	2	19,200,000
E. Pritchard	Winslow Junct'n.	Pulp	L-2427	0	8	19,200,000
Charles Raab	Williamstown	Pulp	A-1147	0	6	16,400,000
Charles Raab	Williamstown	Pulp	L-1846	0	4	16,800,000
Rio Grande Packing Co.	Rio Grande	Catsup	A-1109	3	6	14,400,000
Rio Grande Packing Co.	Rio Grande	Catsup	L-3828	4	12	33,600,000
Rio Grande Packing Co.	Rio Grande	Pulp	A-1108	2	10	12,000,000
Sylvan Roncoroni	Pennsville	Paste	L-1641	.....	15	31,200,000
Salem Canning Co	Quinton	Puree	A-1121	4	4	28,800,000
Salem Supply Co	South Dennis	Pulp	A-1106	4	4	21,600,000
Salem Supply Co	South Dennis	Pulp	L-2419	0	4	16,800,000
A. C. Soper Co	Farmingdale	Catsup	L-3604	0	2	16,800,000
A. C. Soper Co	Farmingdale	Catsup	L-3605	0	6	9,600,000
Luigi Vecchi	Hazlet	Paste	A-1130	10	10	36,000,000
Luigi Vecchi	Hazlet	Paste	L-1457	15	20	28,800,000
Luigi Vecchi	Hazlet	Pulp	L-1094	.....	10	34,400,000
Luigi Vecchi	Hazlet	Pulp	A-1146	10	12	26,400,000
Vesuvian Preserving Co.	Vineland	Paste	L-2414	5	8	45,600,000
Vesuvian Preserving Co.	Vineland	Pulp	L-2413	3	4	24,000,000
George G. Worthley	Matawan	Pulp	A-1131	8	10	16,800,000
George G. Worthley	Matawan	Pulp	A-1145	15	20	52,800,000
George G. Worthley	Matawan	Pulp	B-1145	18	16	26,400,000
George G. Worthley	Matawan	Pulp	C-1145	8	18	26,400,000
George G. Worthley	Matawan	Pulp	D-1145	25	12	30,480,000
George G. Worthley	Matawan	Pulp	E-1145	30	16	48,000,000
George G. Worthley	Matawan	Pulp	L-1506	.....	14	25,200,000
George G. Worthley	Matawan	Pulp	L-3603	8	20	72,000,000

One of the most serious objections to the canning factories has been the lack of proper washing and toilet facilities for the help. Considerable improvement has been noticed in this respect during the present year. It can be seen, from the table, that fifty-four factories have provided washing facilities for men, and sixty-nine factories for women. Twenty-three have not as yet installed washing facilities for men and six factories have no washing facilities for women.

As tending to show the general improvement in factory conditions, it should, perhaps, be stated that thirty-nine factories have provided their women help with special clothing and, at five factories, special clothing is provided for men.

Another difficulty, which has not yet been satisfactorily solved, is in the disposal of waste liquids. At every canning factory there accumulates large quantities of material which is rejected in the course of manufacture and which must be disposed of. This material is of a readily decomposable character and, if permitted to accumulate in, under or around the factory, gives rise to objectionable conditions. This applies, particularly, to the wastes from tomato canning, consisting of skins, cores and putrescible waste liquids derived from the washing machinery and from the water used in cleansing the factories. At sixty-three of the factories the solid wastes are carted away daily to be spread on fields, eight factories empty them into streams, and six others empty the wastes into the city or town sewer. The liquid wastes at twenty-one factories are emptied into streams or brooks, nine make use of cesspools, eleven are able to use the town or city sewer, and thirty-six drain to woods or swamp land. The disposal of these wastes is a difficult matter and no satisfactory method is known of purifying them which does not involve considerable expense. It is obvious, however, that, in the future, arrangements must be made which will enable the canner to dispose of this refuse without emptying it, untreated, into the streams.

In our work of inspection, the canners have co-operated with us in a most satisfactory manner. It is believed that our investigations have resulted in raising the standard of the canned goods of New Jersey and in the production of a better product.

During the year 6,260 samples of food and drugs were examined in the laboratory, an increase of 264 over the previous year.

Table 18 shows the number and kinds of samples examined:

TABLE 18. SHOWING THE NUMBER AND KINDS OF SAMPLES EXAMINED DURING THE YEAR.

Articles Examined.	*No. Above Standard.*	*No. Below Standard.*	*Total No. Samples.*
Milk and Cream	3713	346	4059
Foods other than milk and Cream	1311	188	1499
Drugs	464	238	702
Totals	5488	772	6260

The following table shows in detail the number of samples of foods other than milk and cream which were examined during the year.

TABLE 19. DETAILED STATEMENT REGARDING THE FOODS EXAMINED DURING THE YEAR.

Articles Examined.	*No. Above Standard.*	*No. Below Standard.*	*Total No. Samples.*
Allspice	40		40
Almond Extract	1		1
Asparagus, canned	1		1
Beans, Lima, canned	17		17
Beans, String, canned	1		1
Beans, wax, canned	1		1
Beer (Lager)		2	2
Beets, canned	1		1
Birch beer	1		1
Blackberries, canned	2		2
Butter	287	56	343
Cake	22		22
Candy	1		1
Cheese	26	3	29
Chocolate	2		2
Cider	6		6
Cinnamon, ground	23		23
Cloves	40		40
Cocoa	9		9
Coffee	54		54
Coffee substitutes	6		6
Coloring (for cake)	1		1
Cordials	32	1	33
Curry, powder	2		2
Eggs	8		8
Egg Color	1	1	2
Ginger, ground	13		13

TABLE 19—(Continued)

Articles Examined.	*No. Above Standard.*	*No. Below Standard.*	*Total No. Samples.*
Gluten Flour	1	1	2
Honey	2	1	3
Ice Cream	1		1
Jamaica Ginger	1	2	3
Lard	1	1	2
Lemon Extract	18	6	24
Lemonade	3		3
Lemonade Sugar	1		1
Lemon Juice	1		1
Mace, ground	29		29
Maple Syrup	20	1	21
Molasses	26		26
Mustard, ground	19		19
Nutmegs, ground	9		9
Oleomargarine	7		7
Olive Oil	26	5	31
Orangeade	3	4	7
Orangeade sugar	1		1
Oysters		5	5
Paprika	3		3
Peas, canned	14		14
Pears, canned	2		2
Peanut Butter	1		1
Pepper, black	71		71
Pepper, red	2		2
Pepper Salad	1		1
Pepper, white	31		31
Pineapple, canned	3		3
Pineapple drink		1	1
Preservaline	1		1
Rhubarb, canned	2		2
Sausage	9		9
Soup, canned	5		5
Strawberries	4	2	6
Strawberry Soda	1		1
Sweet Potatoes, canned	1		1
Tomatoes, canned	123	5	128
Tomato catsup	18	3	21
Tomato sauce	8		8
Tomato paste	4	10	14
Tomato pulp	29	9	38
Tomato puree	4	1	5
Vanilla Extract	16	3	19
Vinegar		4	4
Vinegar, brown	2	2	4
Vinegar, cider	152	46	198
Vinegar, distilled		1	1
Vinegar, grain	4		4
Vinegar, malt	2	3	5
Vinegar, red		1	1

TABLE 19—(Continued).

Articles Examined	*No. Above Standard.*	*No. Below Standard.*	*Total No. Samples.*
Vinegar, Syrup	3		3
Vinegar, white	24	5	29
Zoolak	1		1
Water (for poisons)	3	1	4
Water Cress		2	2
Totals	1311	188	1499

The following table shows the number and kinds of drugs examined during the year:

TABLE 20. GIVES A DETAILED STATEMENT REGARDING THE NUMBER OF DRUGS EXAMINED DURING THE YEAR.

Articles Examined	*No. Above Standard.*	*No. Below Standard.*	*Total No. Samples.*
Ammonia Water	1		1
Castor Oil Pills		4	4
Catarrh Tablets	1		1
Catarrh Cure	5		5
Catarrh Snuff	1		1
Cold Remedies	4		4
Cholera Mixture		1	1
Columbian Spirits	1		1
Complexion Wafers	1		1
Compound of Ginger and Capsicum	1		1
Comsumption Remedies	2		2
Cough Remedies	6		6
Cream of Tartar	1		1
Effervescent Reale	1		1
Fludextractum Ipecacuanhae	1		1
Ferrum Reductum		4	4
Garlic Syrup	1		1
Glycerol	1		1
Hair Stain		1	1
Hair Tonic	36	29	65
Headache Remedies	15	6	21
Hemaboloids	1		1
Hydrogen Peroxide	2	3	5
Jaudice Bitters	1		1
Liniment	6	1	7
Linimentum Camphorae	6	3	9
Linseed Oil	10		10
Liquid Peptonoids	1		1
Liquor Calcis	18	6	24
Liquor Magnesii Citratis	5	1	6
Liquor Potassi Arsenitis	5	3	8
Listerine	1		1
Milk Sugar	3		3
Nerve Tonic	3	1	4
Oil, castor	2		2
Oil, olive	3		3

TABLE 20—(Continued).

Articles Examined.	*No. Above Standard.*	*No. Below Standard.*	*Total No. Samples.*
Phenol		2	2
Pills	4	3	7
Pimple Wash	1		1
Rum	1		1
Shampoo	4		4
Sodium Phosphate	3		3
Sodium Sulphate	1		1
Soluble Iron and Quinine Sulphate	1		1
Soothing Syrup	1		1
Spiritus Aetheris Nitrosi	1	3	4
Spiritus Camphorae	1		1
Spiritus Menthae Piperital	7	2	9
Spiritus Myrciae	14	22	36
Spiritus Vini Gallici	11	1	12
Sweet Oil	3		3
Sweet Powder	1		1
Swetzer's Compound	1		1
Syrupus Ipecacuanhae	2	2	4
Tamarind Syrup	1		1
Terebinthina	9		9
Tinctura Iodi	26	32	58
Tinctura Opii	3	7	10
Tinctura Pectoralis	2		2
Tinctura Zingiberis	13	9	22
Tinctura Opii Camphorata	3	3	6
Toilet Cream	1		1
Toilet Waters	11	11	22
Vegetable Compound	1		1
Vinium Carnis et Ferri	1		1
Vodka	4		4
Whiskey	142		142
Wild Cherry Tonic	1		1
Wine	3		3
Witch Hazel	40	78	118
Totals	464	238	702

MILK AND CREAM.

During the year 4,059 samples of milk and cream were examined of which 346 were found to vary from the legal standard. These may be divided into the following cases:

TABLE 21 SHOWING THE NUMBER OF SAMPLES OF MILK AND CREAM EXAMINED.

Milk below standard with respect to solids	212
Milk containing added water	110
Skimmed milk sold in containers not properly marked	4
Cream below the legal standard with respect to fat	19
Cream containing thickening agents	1
Total	346

The situation with respect to market milk is rapidly improving. Producers are taking better care of their milk and middlemen and retailers are resorting to more careful methods. It is also evident that much less actual adulteration takes place now than formerly. This condition has been brought about by active enforcement of the food law, the inspection of dairies and creameries and the adoption of comprehensive milk ordinances by certain cities requiring that milk be graded according to its quality.

During the year we were able to assist two cities in the State by making bacteriological examinations of their milk supply. It would be very desirable, if we were prepared, to undertake a study of the bacterial content of the milk sold in different parts of the State. The laboratory is equipped with the apparatus needed to do this work, but it has not been undertaken because no trained man who could devote sufficient time to it were available. If this work could be undertaken much could be accomplished in securing a cleaner milk supply for our citizens.

BUTTER AND OLEOMARGARINE.

Investigations made during the year show the practice of selling oleomargarine as butter is still prevalent. Oleomargarine is a wholesome food material and it is unfortunate that so many venders still persist in selling it fraudulently. There has been so much trickery in the sale of oleomargarine in the past that a prejudice has been created in the mind of the consumer which is directed against the article instead of against the dishonest vendor as it should be. It is encouraging to note, however, that a number of manufacturers have realized this and are placing it upon the market upon its own merits. The oleomargarine law of this State requires of all persons who sell oleomargarine two things, first; that the package in which the substance is sold shall be plainly marked with the word "Oleomargarine," and secondly; that the purchaser shall be informed at the time of sale that the article which he has purchased is not butter but is in fact oleomargarine. It is the practice in some parts of this State for vendors of oleomargarine to sell the same, in response to a demand for butter, in packages marked in compliance with the law. The purchaser, however is seldom notified verbally that the material is oleomargarine. If legislation could be enacted providing that oleomargarine should only be sold in cartons, plainly and conspicuously marked, with the word "oleomargarine," much of the deception now practiced in the sale of this article would be done away with.

TABLE 22. SHOWING THE PLACES VISITED BY INSPECTORS AND NUMBER OF VISITS TO EACH PLACE.

Absecon	3
Aldine	1
Allentown	8
Alloway	11
Alloway Junction	3
Andover Junction	1
Anglesea	4
Annandale	2
Asbury	1
Asbury Park	22
Atlantic City	56
Atlantic Highlands	5
Audubon	5
Augusta	1
Avon	4
Baptistown	1
Basking Ridge	1
Barnegat	2
Bay Head	6
Bayonne	4
Beaver Run	1
Beach Haven	3
Belford	5
Belmar	3
Belle Meade	2
Belvidere	4
Berlin	3
Bernardsville	3
Beverly	5
Bivalve	33
Blairstown	3
Bloomfield	3
Bloomsbury	1
Boonton	7
Bordentown	11
Bound Brook	2
Bowne	1
Bradley Beach	5
Bricksboro	1
Brielle	2
Bridgeport	2
Bridgeton	48
Burlington	16
Butzville	2
Caldwell	4
Califon	4
Camden	114
Cape May	7
Canton	4
Cape May Court House	3

TABLE 22—(Continued).

Carmel	1
Cedarville	5
Chatham	1
Chester	2
Chesterfield	1
Clayton	2
Cliffside	5
Cliffwood	3
Clifton	1
Clinton	2
Cold Spring	1
Collingswood	3
Columbia	2
Columbus	5
Cookstown	3
Cranford	2
Cranbury	5
Crosswicks	1
Daretown	2
Davis Station	1
Deal	1
Deerfield	5
Delanco	2
Denville	5
Dover	21
East Orange	5
Eatontown	2
Egg Harbor	3
Eggerts Crossing	3
Eldora	4
Elizabeth	30
Elmer	12
Erma	2
Ewan	1
Far Hills	1
Fairfield	1
Fairton	3
Farmingdale	2
Fairview	1
Flagstown	1
Flanders	2
Flemington	14
Florence	1
Folsom	1
Forked River	1
Franklin Park	1
Franklin Furnace	4
Freehold	5
Frenchtown	2
Garfield	2
German Valley	2
Glassboro	8
Glenwood	4
Gloucester	3
Goshen	5
Grenlock	2
Green Village	2
Groveville	1
Greenwich	8
Guttenberg	4
Hackensack	16
Hackettstown	2
Haddonfield	5
Haddon Heights	2
Hainesburg	3
Hamburg	7
Hammonton	4
Hampton	3
Hancock's Bridge	6
Harbourton	1
Harrison	6
Harmersville	3
Hawthorne	1
Hazlett	6
Highlands	16
High Bridge	2
Highland Beach	1
Hightstown	3
Hoboken	37
Holly Beach	3
Hope	2
Hopewell	6
Hornerstown	1
Irvington	6
Island Heights	2
Jacobstown	1
Jamesburg	2
Jersey City	142
Jobstown	3
Kearney	5
Keamsburg	3
Keyport	16
Kirkwood	1
Lakeview	1
Lambertville	7
Landesville	1
Lannington	2
Leesburg	5
Lincoln	3
Lebanon	3
Lewistown	5
Lincroft	1
Lindenwald	2
Little Silver	1
Lodi	7
Long Branch	11
Long Port	2
Lyons Farms	2
Lyndhurst	3
Madison	3

TABLE 22—(Continued).

Manahwaken	1
Manasquan	11
Margate City	1
Marlton	3
Marksboro	2
Masonville	1
Matawan	13
Mauricetown	1
Mays Landing	4
McAfie	3
Medford	4
Merchantville	2
Metuchen	2
Mendham	2
Middleville	3
Midland Park	3
Milburn	1
Millington	1
Millstone	1
Milltown	2
Millville	15
Monmouth Beach	3
Montclair	1
Moorestown	1
Monroeville	3
Morgan	1
Morganville	4
Morris Plains	5
Morristown	15
Mountain Lake	2
Mount Ephraim	1
Mount Holly	18
Mullica Hill	3
Navesink Beach	1
Neshanic	1
Newark	119
New Brunswick	13
New Egypt	5
Newfield	1
New Germantown	2
New Gretna	2
Newkirk Station	1
Newark Valley, N. Y.	2
New Egypt	1
Newport	4
Newton	32
New Village	1
Norma	7
North Bergen	1
North Branch	2
North Caldwell	1
Northfield	1
North Vineland	3
Ocean City	3
Ocean Grove	3
Ogdensburg	1
Orange	6
Palmyra	4
Parkertown	1
Passaic	19
Paterson	43
Paulsboro	1
Peapack	2
Pedricktown	2
Pennsville	2
Pemberton	4
Pennington	5
Perth Amboy	12
Phalam	3
Phillipsburg	13
Pine Brook	1
Pitman	4
Pittstown	2
Plainfield	15
Pleasantville	7
Pleasure Bay	2
Point Pleasant	8
Port Elizabeth	3
Port Monmouth	1
Port Norris	2
Princeton	1
Quinton	7
Quarryville	2
Rahway	2
Raritan	3
Red Bank	47
Reigelsville	1
Ridgewood	1
Ringoes	1
Rio Grande	5
River Edge	1
Riverside	3
Riverdale	1
Riverton	6
Roebling	1
Roselle	2
Roselle Park	4
Rosenhayn	2
Rumson	2
Rutherford	2
Salem	27
Sayreville	1
Sea Bright	3
Sea Isle City	2
Sea Girt	5
Seaside Park	1
Sewell	2
Sharptown	4
Shiloh	2
Shrewsbury	2
Somerville	2
South Amboy	4
South Dennis	5
South Orange	8

TABLE 22—(Continued).

South Vineland	1	Vineland	15
Spottswood	2	Warrenville	5
Spring Lake	9	Washington	10
Stewartsville	1	Watchung	2
Stirling	2	Weehawken	3
Stone Harbor	1	Wenonah	1
Stockton	1	West Collingswood	1
Summit	1	West Creek	2
Sussex	8	West Hoboken	11
Swartswood	1	Westmont	1
Swedesboro	7	West New York	7
Tanoka	1	West Point Pleasant	2
Tenafly	1	West Portal	1
Three Bridges	3	Westville	1
Tinton Falls	1	Westwood	3
Toms River	4	White House	3
Totowa	1	Wildwood	3
Trenton	174	Williamston	5
Tuckerton	17	Winslow Junction	2
Tuckahoe	4	Woodbury	5
Union Hill	14	Woodbine	1
Union	1	Woodbury	1
Ventnor	2	Woodstown	10
Vernon	2	Wrightstown	4
Vienna	1	Yorketown	5

TOILET PREPARATIONS.

Preliminary investigations made during the fall of 1912 showed that barber shops throughout the State were using hair tonics, toilet waters and similar lotions, many of which contained methyl, or wood alcohol. The dangerous character of wood alcohol when applied externally has been well established. It was therefore deemed important to take action against the use of this poison in the class of preparations enumerated above.

Throughout the past year investigations have been made of barber shops and barber supply houses in all the principal cities and towns of the State. It was found that the hair tonics and other preparations containing wood alcohol were either manufactured in New Jersey or brought into the State by dealers in New York City and Philadelphia. It should be stated that analysis of the nationally advertised tonics failed to reveal any wood alcohol in their composition.

It appears to be the practice of some barbers to make up their own toilet lotions and many have been unable to withstand the temptation to substitute either wood or denatured alcohol for the more expensive grain alcohol. Despite the publicity which has been given the matter during the past few years, there still seems to be a considerable number of manufacturers and dealers in alcoholic preparations who profess to be unaware of the fact that wood alcohol enters into the composition of denatured alcohol. It is to be deplored that there is so little difference in the trade names for the best grades of wood and grain alcohol which are, respectively, columbian spirit and cologne spirit. However, when one considers that a gallon of grain alcohol costs nearly three dollars while a like amount of either denatured or wood alcohol can be bought for less than a dollar, it is at once apparent that the dissimilarity in price is so marked as to prevent any confusion on the part of the purchaser with regard to the kind of alcohol purchased.

The labels on the products of some barber's supply houses bore the statement that the preparation contained "methyl alcohol." This declaration was undoubtedly made with the thought that such an assertion would meet the requirements of the law and yet serve to keep their customers in ignorance of the dangerous character of the compound. However, Chapter 286, Laws of 1912 prohibits the use of methyl, or wood alcohol in any preparation or mixture intended for use, either internally or externally, upon the human body.

The practice of compounding lotions with wood alcohol was readily broken up so far as the manufacturers in this State were concerned. In many instances a warning notice served to bring about the desired correction though in other cases it was necessary to institute legal proceedings. The problem presented by New York and Philadelphia barbers' supply companies who sell goods in New Jersey is much more difficult of solution. A large number of such concerns, doing business directly with the barbers, operate in the State and the fact that they use wood alcohol in their preparations enables them to undersell the New Jersey barbers' supply houses who are compounding their preparations with grain alcohol. Manifestly, such competition is most unfair. After several unsuccessful attempts to serve the necessary legal papers upon representatives of these "foreign" concerns, and in view of the fact that this was a matter of interstate commerce, it was deemed advisable to refer the facts in these cases to the United States Department of Agriculture. It is to be hoped that the efforts of this Department will speedily bring about the cessation of a competition which works a decided hardship upon those carrying on a legitimate business in this line.

Investigation also showed that many barbers make a practice of refilling the bottles of the extensively advertised preparations with concoctions of their own manufacture. This form of deception has been, in a large measure, discontinued as a result of the inspection and sampling of the bottles actually in use by the barbers. Such a result was not brought about, however, until suit had been brought against several such offenders.

About one hundred and fifty samples of preparations either manufactured by resident barbers' supply houses or in use by barbers in this state have been collected and analyzed during the past year. About seventy of such specimens have been found to contain wood alcohol. Not the least interesting phase of this wholesale adulteration is the extravagant therapeutic claims made upon the labels of these lotions.

A favorite expression of hair tonic virtue borne by the labels of many such bottles is the following: "A delightful preparation for restoring the hair, prevents the hair from falling out, cleanses the scalp and promotes a healthy and luxurious growth." The lotions bearing this statement contained from 35% to 75% of wood alcohol. Doubtless realizing that French toilet preparations are generally regarded as of a quality superior to those of native production, a Jersey City manufacturer labels his hair tonic as the product of the "Parfumerie Comtesse

Aime, Paris," modestly claiming that "this preparation contains ingredients that will positively prevent the hair from falling out." Another similar lotion prepared in Perth Amboy states that it has been "Preparee par M. Harvaux and Co., Parfumer, Paris." The virtues of this "Eau de Quinine" are extolled entirely in French. Still another "hair dresser" asserts that it gives "a rich gloss to the hair, a delightful and refreshing cooling to the scalp." In view of the fact that this "dresser" contains 65% of wood alcohol, the veracity of the latter claim, at least, is open to doubt.

The samples of bay rum collected were invariably described by the labels as "Double Distilled," "Superior," or "Supreme." Many of these bay rums were found upon analysis not only to contain wood alcohol but also to be almost entirely lacking in those essential oils which give to this article its name and the odor for which it is chiefly prized.

Recent reinspections of the barber shops and barbers' supply houses throughout the state show that the practice of compounding toilet lotions with methyl, or wood alcohol, has been almost completely discontinued. However, it is the purpose of the Food and Drug section to continue this line of investigation until the use of this poison in toilet preparations, as well as in compounds for internal administration, is abandoned.

DRUGS AND MEDICINES.

The laboratory facilities of the Food and Drug section are, at the present time, inadequate for carrying on any extensive investigation into the drug trade in New Jersey. Despite this handicap, due to lack of space and an insufficient number of analysts, a great deal more work along this line has been accomplished during 1913 than during any previous year.

About 500 samples of drugs and medicines have been examined. The field of investigation has of necessity been confined to those U. S. Pharmacopoeia and National Formulary preparations which are most commonly dispensed and therefore most liable to adulteration.

"Patent" medicines have also been examined to some extent and it is gratifying to note that, for the most part, the labels on this class of preparations now bear reasonably accurate statements of the kind and quantity of those drugs, a declaration of the presence and amount of which is made obligatory by the Food and Drugs Act of 1907. However, these preparations still continue to carry upon their labels extravagant and erroneous statements of their curative and remedial value.

A number of objectionable practices on the part of druggists have been investigated. In most instances these practices have been indulged in for so many years that they have become customs of the trade. By means of the analysis of samples and inquiry among pharmacists it was learned that there existed a custom of dispensing "compound cathartic pills" when "castor oil pills" were requested. Compound cathartic pills were found to vary considerably in composition but, in general, they corresponded to the U. S. P. preparation of the same name and contained calomel, jalap resin, and gamboge. No trace of castor oil was found in any of the samples analyzed. Misbranding of this character is not only misleading to the purchaser of "castor oil pills" but it is also fraught with an element of danger. These pills are given to children under the parental impression that they offer a convenient and palatable method of administering castor oil.

Realizing that this custom of misbranding compound cathartic pills was widespread, the State Board of Health did not institute suit for the recovery of a penalty as might readily have been done but instead a notice warning druggists that this practice must be discontinued, was printed in the leading drug trade journals circulating in New Jersey. In the future, however, this form of misbranding will not be tolerated and suit for the collection of a penalty will be instituted against those detected indulging in it.

Headache remedies, in tablet and powder form, are sold in enormous quantities throughout the State. These "remedies" invariably contain either acetanilid or phenacetin. Both acetanilid and phenacetin are dangerous drugs and all preparations containing them should, as required by the Food and Drugs Act, bear upon their labels a statement of the quantity present. Nevertheless, it was found that a large number of druggists in New Jersey were dispensing headache or migraine pills containing either acetanilid or phenacetin or both without making any statement of their presence upon the box labels. In view of the harmful character of these drugs, this custom cannot be too severely condemned. The State Board of Health has forwarded a circular letter to every druggist in the State calling his attention to this offence against the law and notifying him that this practice must cease.

It is frequently found that a pharmacist who has violated the provisions of the Food and Drugs Act with respect to his U. S. P. and National Formulary preparations, has done so unwittingly; trust having been placed, or rather misplaced in the result of analysis printed upon the label of the compound by the manufacturing chemist from whom it was purchased. All U. S. P. and similar preparations should be assayed by the pharmacist in his own laboratory before he permits them to be dispensed or used in the compounding of other preparations.

It has been frequently observed that the U. S. P. syrups and tinctures made up from fluidextracts purchased of manufacturing chemists have fallen below standard not because of any carelessness upon the part of the pharmacist, but because the fluidextract itself differed considerably from the strength claimed for it by the assay figures on the bottle. Syrup of ipecac and tincture of ginger prepared in the manner described above have been especially noted as frequently differing from the standards of the Pharmacopoeia.

Tincture of ginger seems to be particularly liable to adulteration. Several samples analyzed were found to contain capsicum and other samples were so low in alcohol content as to contain little or none of the pungent ginger oleoresins.

It is difficult to conceive of a drug requiring less care, skill or expense it its preparation than does lime water. Nevertheless, more than one quarter of the samples of lime water analyzed during the year were found to be below the prescribed standard, some containing calcium hydrate in a quantity so small as to be hardly determinable. It is to be hoped that this carelessness and inaccuracy in the preparation of so simple a solution does not extend to the pharmacist's general methods of compounding.

Among the other specimens of drugs analyzed and found to be below the standard set by the Pharmacopoeia one notes preparations containing camphor, sweet spirits of nitre and reduced iron. These drugs deteriorate with age and unless prepared afresh at frequent intervals, they are almost certain to fall below their required strength.

During 1914 it is hoped to continue and expand the investigation into the field of drugs and medicines. Special attention will be paid to the proprietary and "patent" medicines manufactured and sold within the State. Every community has its manufacturer or producer of medicines and nostrums. For the most part this business is carried on in the kitchen or cellar of the producer's residence and it is almost impossible for the inspectors of this Division to locate plants of this character. Therefore, the section of Food and Drugs would appreciate any information furnished it with reference to the existence and location of manufactories of this type.

POISONS.

The examination of substances for the purpose of detecting evidence of poison will not ordinarily be undertaken. In the case of materials submitted by state institutions exceptions may be made to this rule.

Perhaps the most interesting work of this character carried on in the laboratory during the past year was an investigation into the cause of death of a herd of calves at the Jamesburg Home for Boys.

On May 19, 1913, 24 yearlings apparently in the best of health, were transferred from one orchard pasture to another similar pasture. Within a few days sixteen of the twenty-four had died. The symptoms preceding death indicated poisoning and at first it was supposed that the cattle had partaken of deadly nightshade or other poisonous vegetation growing in small quantities in the pasture.

However, a veterinarian in attendance sent the stomach from one of these calves to the laboratory for examination. Upon analysis, considerable quantities of lead and arsenic were found in this stomach. No definite conclusion was arrived at as to the manner in which the cattle had taken these metals into their system, but it was conjectured that they had eaten arsenate of lead which had been recently used to spray the apple trees.

WATER-CRESS.

During August, 1913, the laboratory demonstrated again the danger of typhoid and other infection that may exist in the eating of water-cress from unknown sources.

It was learned that water-cress picked from along the Loantaka Brook in Morris Township was being sold in quantities in the markets of Newark, Morristown and other nearby places. An inspection of the brook was made and water-cress was found to be growing luxuriantly for a distance of 500 yards along its banks. Samples of water from the brook were analyzed and found to be grossly polluted.

Specimens of the water-cress were collected for examination. Ten grams of the cress were shaken with 100 cubic centimeters of sterile water and the resulting mixture subjected to bacteriological examination. One cubic centimeter of this water was found to contain 550,000 bacteria capable of growing at the temperature of the human body (37.5° C.) and the bacillus coli, the principal organism in fecal matter, was identified in one-ten-thousandth of a cubic centimeter. These figures show that there were approximately 150 million bacteria in each ounce of water-cress and of these 3,000,000 had their origin in fecal matter.

Basing its action upon the result of this examination the State Board of Health ordered the owners of property along Lountaka Brook to remove the water-cress in order to eliminate any possibility of its being sold as food.

EGGS.

Eggs are favorite articles of food, and the egg industry is of considerable commercial importance and is rapidly increasing. In earlier times, eggs, if sold at all, were marketed near the place where they were produced, but, with improved methods of transportation, the market has been extended and eggs are shipped long distances. The development of the cold storage industry has also been a material factor in the growth of the egg business.

Eggs are now shipped in great quantities to the large cold storage warehouses, where they are held to meet the demands of the public when eggs are not being produced in sufficient quantity to supply the demand. In order that eggs may be successfully stored, they must be of good quality. Candling, as it is called, is the method commonly used in grading.

Eggs were formerly stored exclusively in the shell. Within the last few years, however, great quantities of eggs have been stored in bulk, after removal from their shells, in cans containing from thirty to fifty pounds, at a temperature of zero or below. This phase of the business has been developed to care for those eggs, which, although, perfectly wholesome, are not classed as first quality. The eggs used consist, as a rule, of what is known in the trade as heated eggs, watery eggs, undersized eggs and those which have dirty shells or which have become cracked or broken in handling.

During the year, an interesting situation arose in reference to a certain lot of frozen eggs which had been stored in one of the large warehouses in this State.

In 1910, a quantity of frozen eggs, consisting of about four hundred cans, held in the Merchants' Refrigerating Company's warehouse at Jersey City and owned by H. J. Keith Company, were seized by the U. S. Department of Agricurture. In its libel, the United States alleged that the product consisted, in whole or in part, of filthy, decomposed, and putrid animal matter to wit, egg substance. The H. J: Keith Company acknowledged the ownership of the goods and denied the charges concerning them. The case was tried in the United States District Court at Trenton, New Jersey, by Judge Cross, who, after a trial lasting several days, decided in favor of the Keith Company. The case was appealed and, although the Circuit Court of Appeals took a different view, the litigation was finally decided by the United States Supreme Court, which determined that the Court of Appeals had no jurisdiction. The eggs were, therefore, released by the United States Marshal.

On March 4, 1913, the State Board of Health received a letter from the H. J. Keith Company of Boston, Mass., signed by H. J. Keith, asking permission to remove these eggs from the Jersey City Warehouse of the Merchants' Refriegrating Company for the purpose of sale for food. Section 7 of the Cold Storage Act (Chapter 189, Laws of 1911) provides that "* * * * * no such food, or article used for food shall, after the expiration of said period of ten months, be delivered to any person, persons or corporation without a certificate from the State Board of Health first had and obtained authorizing such delivery. Power is hereby given to the said State Board of Health, or its proper agents, to extend the time when any particular foodstuffs or article used for food may be kept, maintained or preserved in such place or places."

Under the provisions of this section, it became the duty of the State Board of Health, which had from time to time extended the period for storage of this product as an act of courtesy to the United States Courts, to determine whether the product was fit for use as food, or whether it should, under the provisions of the food law, be condemned as unfit for food, and destroyed or denatured. The Board, therefore, ordered samples collected and examined.

In compliance with this order, on March 13, 1913, samples were collected. At that time, there were 329 cans, containing, approximately, thirty pounds each in storage in a room which was held at a temperature of 7° Fahrenheit below zero. Six cans were selected at random as samples and numbered L-1710 to L-1715 inclusive. The cans were then sealed and packed separately in grape barrels with sawdust, and replaced in the freezer. On the following morning, the barrels were shipped by express to the cold storage warehouse of Holcombe and Wilson, Trenton, New Jersey, where they remained until our laboratory experiments were completed.

Physical, chemical and bacteriological examinations were made of the egg product in the Laboratory, and a number of feeding experiments were also made on members of the Laboratory staff. Parallel physical, chemical and bacteriological tests and feeding experiments were made with fresh eggs. The chemical analyses included determinations of ammonia and acidity, and qualitative tests for indol and skatol, the purpose being to detect evidences of decomposition. In no case did the results on the Keith egg product differ materially from those obtained with similarly prepared fresh eggs. The bacterial examinations were made in accordance with standard methods. Plates and subsequent bacterial counts were made on nutrient agar at 20° C and 37° C. The presumtive test for B. coli was made, using lactose bile in the usual manner. The figures obtained were much higher than those obtained on fresh eggs. The number of bacteria per gram varied from 5,000,000 to 50,000,000 and presumptive tests for B. coli were secured on dilutions of 1—1,000,000 in three instances and once in a dilution of 1—10,000,000. Sample L—1711 became contaminated and was therefore not examined bacteriologically.

The physical examination included observations on the odor, cold and hot, taste, and appearance. In no instance could any physical evidence of putrefaction or decomposition be detected.

In the feeding experiments, batches of cup cake, pound cake, fruit cake, custard pie, cup custard, scrambled eggs, omelet and frozen custard were prepared, together with control lots made from fresh eggs. These were eaten by members of the Laboratory staff. In all, fifteen persons participated in the experiments. These people were kept under careful observation and in no instance was any ill effect observed. The experiments were made on different days and the various foods eaten in large doses. The persons eating these articles also ate of the controls prepared from fresh eggs, and were requested to determine by the taste and odor which articles were made with the Keith egg product and which with fresh eggs. So many errors were made in attempting to identify articles made from the Keith product that it was quite apparent that it was not possible to distinguish one from the other.

The results of our experiments showed that the product was not filthy nor putrid, nor could the product be regarded as decomposed, within the ordinary meaning of that word. It was evident, from the results of our examinations, that some bacterial growth had taken place in the eggs before they were frozen, and bacterial growth is always attended by the breaking down of substances upon which bacteria subsist, and to this extent decomposition had taken place. This, however, is a highly technical use of the word, and it is quite evident that the Legislature did not intend to use it in this way, inasmuch as it is connected in the subdivision above referred to with the words "filthy" and "putrid," both of which are only properly applied to substances in such an advanced state of decay as to be obnoxious to the senses. Moreover, were the word "decomposed," as used in the act, construed to mean that technical decomposition, due to the growth of bacteria, which is not sufficiently pronounced to be perceptible to the senses, then the above cited subdivision would render illegal the sale of a large number of foods which are recognized as proper and wholesome, such as milk, cheese, bread, butter, buttermilk, sauerkraut, and a host of others, all of which normally contain the products of decomposition due to the action of micro-organisms.

The analyses did show that the eggs contained about 10% of sugar, the presence of which was not declared on the cans in which they were contained.

Two hearings were held by the State Board of Health, at which representatives of the owners of the eggs were heard, for the purpose of ascertaining how the eggs were handled. It appeared that the eggs had "been broken out" into clean cans, under excellent sanitary conditions and in rooms especially adapted for that purpose.

No evidence having been obtained to show that the eggs were not a fit food product, by its own investigations and examinations made by its own chemists, the State Board of Health granted permission to remove the same from storage. This permission was granted with the proviso that the labels on the cans bear a plain statement showing the amount of sugar present and the length of time the eggs had been in cold storage.

TABLE 23. ANALYTICAL RESULTS ON FROZEN EGG PRODUCT.

CHEMICAL ANALYSIS.

Qualitative tests for Indol—Negative.
Qualitative tests for Skatol—Negative.

ACIDITY OF SAMPLES.

Expressed in c. c. N-10 NaOH required to neutralize 100 grms. of sample.

L—1710—17.8 c. c.
L—1711—18.0 c. c.
L—1712—16.8 c. c.
L—1713—16.0 c. c.
L—1714—16.4 c. c.
L—1715—15.2 c. c.

ACIDITY AFTER STANDING 96 HRS. IN LABORATORY REFRIGERATOR.

L—1714—38.0 c. c.
L—1715—52.0 c. c.

AMMONIA-FOLIN METHOD.

Expressed in milligrams NH3 per 100 grms. sample.

Fresh eggs—2.37
Store eggs—2.77

TABLE 23—(Continued).

Keith eggs.

L—1710—3.41
L—1711—2.12
L—1712—2.37
L—1713—2.32
L—1714—2.18
L—1715—3.47

Cane sugar....................approximately 10%.

BACTERIOLOGICAL EXAMINATION.

Bacterial Count in 1 gram of sample.
Plain Agar at 20 degrees C.

	Sample.	*Duplicate.*
L—1710	11,500,000	10,200,000
L—1711	contaminated.	
L—1712	6,500,000	5,800,000
L—1713	15,500,000	15,000,000
L—1714	18,000,000	21,200,000
L—1715	50,000,000	47,000,000

Bacterial Count in 1 gram of sample.

Litmus Lactose Agar at 37.5 degrees C.

			Red Colonies.	
	Sample.	*Duplicate.*	*Sample.*	*Duplicate.*
L—1710	4,100,000	3,300,000	1,400,000	1,200,000
L—1711		contaminated.		
L—1712	1,900,000	2,400,000	700,000	900,000
L—1713	1,800,000	2,800,000	500,000	1,400,000
L—1714	3,900,000	4,600,000	1,400,000	1,700,000
L—1715	4,000,000	5,400,000	1,400,000	1,800,000

PER CENT. GAS IN LACTOSE BILE.

		48 hours Dilutions.				*72 hours Dilutions.*			
		$\frac{1}{100}$	$\frac{1}{10000}$	$\frac{1}{100000}$	$\frac{1}{1000000}$	$\frac{1}{100}$	$\frac{1}{10000}$	$\frac{1}{100000}$	$\frac{1}{1000000}$
L—1710	A.	80	60	60	40	100	90	100	100
	B.	80	70	60	50	100	100	100	100
L—1711				Contaminated.					
L—1712	A.	60	50	50	0	90	90	95	0
	B.	60	60	60	70	100	100	95	100
L—1713	A.	40	60	60	40	100	100	100	100
	B.	70	70	70	0	100	100	100	0
L—1714	A.	70	50	50	0	100	100	100	0
	B.	40	40	30	20	100	90	100	100
L—1715	A.	80	70	50	30	100	100	100	100
	B.	90	70	80	50	100	100	100	100

TABLE 23—(Continued).

PER CENT. GAS IN LACTOSE BILE.

		48 hours Dilutions.			*72 hours Dilutions.*		
		$\frac{1}{1000000}$	$\frac{1}{10000000}$	$\frac{1}{100000000}$	$\frac{1}{1000000}$	$\frac{1}{10000000}$	$\frac{1}{100000000}$
L—1710	A.	70	70	0	95	90	0
	B.	60	0	0	90	0	0
L—1711		......................Contaminated.					
L—1712	A.	90	0	0	90	0	0
	B.	0	0	0	0	0	0
L—1713	A.	20	50	0	30	90	0
	B.	0	0	0	0	0	0
L—1714	A.	70	60	0	90	90	0
	B.	60	0	0	90	0	0
L—1715	A.	40	25	0	90	40	0
	B.	0	0	0	0	0	0

Samples L—1710, L—1712, L—1713, L—1714, L—1715, planted in liver broth, in dilutions of 1:10,000; 1:1,000,000; 1: 10,000,000. Incubated for 24 hours at 37.5 degrees C. Then inoculated lactose bile tubes with 1 c. c. from each.

PER CENT. GAS AFTER 24 HOURS INCUBATION AT 37.5DEGREES C.

	$\frac{1}{10,000}$	$\frac{1}{1,000,000}$	$\frac{1}{10,000,000}$
L—1710	100	80	0
L—1712	100	100	50
L—1713	100	70	0
L—1714	100	80	0
L—1715	100	90	60

Selected tube from lowest dilutions showing gas for identification of B. coli. Obtained following typical cultural characteristics:

1. **Numerous red colonies on litmus lactose agar.**
2. **Gas in lactose bile.**
3. **Motility; positive.**
4. **Characteristic growth on slant agar.**
5. **Litmus Milk; positive.**
6. **Gelatine not liquified.**
7. **Indol produced.**

As was pointed out in the introductory the Food and Drug Secion through the medium of its laboratory made many analyses of water and sewage during the year and in addition obtained data from special investigations relating to the use of calcium hypochlorite as a disinfectant for public water supplies.

The following table shows the number and kind of samples examined during the year:

TABLE 24.

RECORD OF SAMPLES ANALYZED IN THE WATER LABORATORY FROM NOVEMBER 1, 1912 TO OCTOBER 31, 1913:

	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Total.
Public water supplies............	137	127	133	151	97	111	116	87	128	150	119	139	1495
Special public water supplies.....	...	...	...	...	87	84	84	61	54	22	2	8	402
Proposed public water supplies..	...	...	...	...	...	...	...	3	1	...	3	1	8
State institution water supplies..	6	20	12	12	4	8	3	3	4	17	6	8	103
Private water supplies...........	19	17	14	12	12	8	20	16	23	39	20	67	267
Bottled water supplies...........	9	...	2	14	9	3	...	5	...	4	1	2	49
Creamery water supplies........	2	1	...	...	...	...	...	...	...	...	...	1	4
Dairy water supplies............	...	8	5	...	2	...	...	2	1	...	1	...	19
Miscellaneous waters..	21	1	...	...	...	...	...	...	...	1	2	1	26
Ice samples..	...	...	...	...	...	...	...	...	2	...	...	1	3
Trade wastes..	...	...	...	...	...	...	5	1	3	2	...	...	11
Sewage samples..	14	21	31	20	11	10	9	10	61	7	7	17	218
Miscellaneous samples..	1	2	...	1	1	...	...	...	3	3	...	6	17
Total..................	209	197	197	210	223	224	237	188	280	245	161	251	2622

The analyses of samples of water collected for the purpose of testing the efficiency of various water purification plants or other methods of water treatment will be found in the report on Water and Sewerage Inspection.

The majority of samples mentioned in the above table were collected by inspectors of the Board from public water supplies. Many were collected and analyzed in compliance with requests from officers of local boards of health who were desirous of causing the use of wells to be abandoned if found to be polluted. The Board stands ready as in the past to comply with all legitimate requests for water analyses, but in order to keep the work within limits certain rules for the submission of samples have been adopted.

RULES.

1. No samples of water will be examined unless submitted in containers provided by the State Board of Health. Samples sent in any other containers will be immediately discarded.
2. Requests for containers by private individuals will not be complied with under ordinary circumstances. Such requests should come through local boards of health.
3. Requests for containers from local health officials will not be complied with unless each request is accompanied by an explicit statement showing why the analysis is desired, the source of the water, and unless this Board has some assurance that if analysis shows the sample to be polluted, some action will be taken by local authorities to prevent further use of the water for potable purposes.
4. Examinations of samples of water will not be made to determine the fitness of such water for industrial purposes.
5. The State Board of Health will assume no responsibility for the accuracy of water analyses unless samples are collected by employees of the Board.

In order that persons receiving reports of water analyses from this Division may understand more fully the quantitative statement of the presence of B. coli, the methods by which the results are derived and the reason for changing from the form of expression used in previous reports, the following explanation is given at this time.

The culture medium used for the presumptive test for bacillus coli is known as lactose bile, and is used in such a way that the colon bacillus, if present, will produce a gas by fermentation of the lactose. The per cent. of gas thus produced can be determined and it has been the practice to call all tests positive which showed ten per cent or more of gas after seventy-two hours incubation at 37.5° C.

The practice in former years was to plant three tubes from all samples of water received, the tubes receiving 10 c. c., 1 c. c. and 0.1 c. c. of the water respectively. The results were expressed as B. coli indicated in 10 c. c., 1 c. c. or 01. c. c., or absent in 10 c. c. as the case might be.

This procedure is open to serious objections. It is doubtful if the presence of B. coli in 10 c. c. of water when absent in 1 c. c. is significent of pollution in many cases, or gives any important information as to the quality of the water.

A second objection is that the figure obtained by planting 10 c. c., 1 c. c. and 0.1 c. c. is a very rough one. There is no way of determining whether there is only one bacilus coli in the 10 c. c. tube or eight or nine organisms present, which would be quite possible without their presence being indicated in 1 c. c. of the water. The same is true of the larger numbers which would be indicated in the 1 c. c. or 0.1 c. c. tubes.

A third objection closely allied to the second, is that the total volume of water planted (excluding the 10 cc. as not of partial value) is too small for a fair sample. Under the procedure just described, this volume would be only 1.1 c. c., and the chances for error where B. coli are present in very small numbers, as in most public water supplies, would be too great to base a conclusion on such a small volume planted. To obviate these objections without unduly increasing the amount of work to be performed on each sample, the procedure was changed early in the present year (1913) to the one now in use.

This practice is to plant from all public supplies and other supplies believed to be of good quality five bile tubes with one cubic centimeter of water each. These may indicate B. coli absent in all five tubes, that is, absent in 5 c. c. and present in one or more of them, giving a quantative result of one organism in 5 c. c., two in 5 c. c. or perhaps five in 5 c. c. For convenience, and to make the results uniform with those of other branches of bacteriological work, the results are usually expressed as the number present in 10 cc, by multiplying the number of tubes showing 10% or more of gas by two. Thus, if two of the five tubes showed 10% or more of gas at the end of seventy-two hours incubation at 37.5° C, the result would be expressed as "B. coli indicated 4 in 10 c. c."

When a water is suspected of containing more than five B. coli per c. c., which would be beyond the quantitative limits of the procedure just outlined, five additional tubes are planted, each containing 0.1 c. c. of the water sample. This raises the maximum limit, to present in all five of the 0.1 cc. dilution tubes, that is, five organisms in 0.5 c. c. of water, or ten in 1 c. c. It will be seen by a study of this procedure that accurate quantitative figures may be obtained at nine points between the two limits, as follows; absent in 5 c. c., 2, 4, 6, 8, or 10 in 10 c. c., and 2, 4, 6, 8 or 10 in 1 c. c.

This method does away with all three objections noted at the beginning of the discussion.

The procedure is modified, however, for one class of waters which are examined regularly, namely; raw waters that furnish supplies for filter plants. These waters are usually known to be polluted, to an extent that might frequently give presumptive tests beyond the upper limit of the method just given. Furthermore an accurate count of the gas producing or B. coli like organisms is not necessary, the aim being to obtain a rough figure to indicate the efficiency of the filter. For this purpose, three tubes are planted with 1 cc., 0.1 c. c. and .01 c. c. of water each. The results thus obtained cover a wide range of pollution and are sufficiently accurate for the purpose to which they are put.

INVESTIGATION RELATING TO THE USE OF CALCIUM HYPOCHLORITE AS A DISINFECTANT FOR PUBLIC WATER SUPPLIES.

Various questions arising from the use of calcium hypochlorite, or bleach, as a disinfectant for water and sewage in numerous cities and towns in the state, suggested an investigation of the subject by the Laboratory.

The hypochlorite plant of the Trenton Water Department offered an excellent opportunity for study, and, early in February of the current year, the investigation was begun.

The routine work for obtaining the desired data consisted of taking four samples of water daily from different points of the Trenton supply, and examining them for turbidity, alkalinity, hardness, bacterial counts at 20° C and 37° C, and the presumptive test for B. coli. Records were also kept of the weather conditions, temperature of the air and water, and dose of available chlorine added to the water, the latter being taken from the records of the water department daily.

The samples of water were taken as follows: A sample of the raw river water was secured at a point about 100 feet upstream from the intake of the supply. A second sample was taken from a tap on one of the pumps showing the water, a short time—perhaps 5 to 10 minutes—after the hypochlorite had been added. A third sample was obtained at the reservoir from the discharge of the force main, representing the treated water an hour or so after being dosed, but before mixing with the general supply of the reservoir. The fourth sample was taken from the tap in the Laboratory at the State House, representing the treated water, as it is delivered to the consumer, after two days' or more, storage in the reservoir and distributing mains. The samples were collected by a chemist or bacteriologist of the Laboratory, and the bacteriological work started at once to insure accurate results. The methods of analysis were those recommended by the American Public Health Association; the erythrosine method being used for alkalinity; the soap method for hardness; comparison with permanent standards for low turbidities, and the candle method for turbidities of greater density.

In the bacteriological examination, two plain agar plates, of suitable dilutions, were made from each sample for incubation at 20° C, and two litmus lactose agar plates, of dilutions giving the most accurate counts, were made for 37° C growth, from each of the four samples.

For the presumptive test for B. coli, different technique was used on the raw water from the procedure on the treated samples. The practice was to plant three lactose bile tubes with the raw water, in quantities of 1 cc, 0.1 cc. and .01 cc. In times of high turbidity, or when the water was suspected of being polluted to an unusual degree, a .001 cc. dilution tube was also planted.

The usual procedure with the three treated samples was to plant five tubes with 1 cc each of the water, but here too, if conditions required, five additional tubes were planted with 0.1 cc. of water each. This procedure of planting gave an approximate estimation of the B. coli content of the raw water with a method having a wide range to cover the rapid and wide variations of the river pollution, and a count of the gas forming organisms in the treated waters. By planting five tubes of 1 cc. each and five tubes of 0.1 cc. each, a quantitative result may be obtained between the limits of absent in 5 cc. to five organisms in 0.5 cc., or, on a decimal basis, 10 in 1 cc.

The 37° plates were counted for total and red colonies at the end of a 24 hour incubation period; the 20° plates at the end of 48 hours, and the bile tubes at the end of 48 and 72 hour periods. The presence of 10 per cent., or more, of gas in the bile tubes at the end of 72 hours was considered a positive presumptive test for B. coli-like organisms.

Samples were collected and examined five or six days a week in March, April, May, and part of June, July and August. This period covered nearly all stages of temperature, turbidity, height of the river, and dose of hypochlorite, with their attendant effects on the composition of the water, and sufficient data were secured for at least a preliminary study of the effect of the hypochlorite treatment under the varying conditions afforded.

Samples were collected and analyzed on 95 days. The results of the analyses and examinations accompany this report in tabular form as table 31. In the study and interpretation of the data, the following facts should be considered. The column headed "Available Chlorine (parts per million)" represents the strength of the dose of hypochlorite added to the water in the intake pipe between the river and pump well. This is mixed with the water in passing through the pump well, pumps and force main. It fairly represents the dose of the water taken from the pump and reservoir intake. When mixed with the reservoir supply, it is mingled with waters having received frequently a greater or less dose of hypochlorite, and from that time until it is drawn from the tap by the consumer, it is impossible, except in certain cases where the same dose is used over a considerable period of time, to determine the dose with which any particular sample has been treated. Therefore, except in a general way and at certain times, the study of the effeot of the hypochlorite must be confined to the samples taken from the pump and reservoir intake.

The results of the presumptive test for for B. coli are expressed in the table on the basis of the number present in 10 cc. These results were obtained, in the case of the three treated waters, by multiplying the number of positive bile tubes by 2. For example; if two of the five tubes, each planted with 1 cc. of water, contained 10% or more, of gas, the result is expressed as 4 in 10 cc. The expression of results from the examination of the raw river water is only approximately correct, but probably conservative. If gas was present in the 0.1 cc. tube and absent in the .01 cc., it is fair to assume that there are at least ten gas forming organisms per cc.

By expressing the results in this way, the table is simplified. and the reduction of B. coli by the hypochlorite treatment is clearly shown. If it is remembered that the statement of 1000 B. coli in 10 cc is equivalent to the expression present in .01 cc, there will be no false conclusions drawn.

One of the questions frequently asked was the effect of hypochlorite treatment on the hardness of the water.

The popular impression seems to be that this method of treatment is one connected with the use of lime in some form, and therefore, must increase the hardness of the water. It is obvious, of course, that a dose of available chlorine of somewhat less than 1 part per million, requiring the use of 3 parts per million or less, of bleaching powder, could not affect a water to any noticeable extent. In fact, it will be seen by the table that the natural variaton of the hardness of the river water, between the high spring floods and low water during the summer months. is as great as 60 parts per million, or 30 to 40 times the greatest possible increase due to the lime in the hypochlorite.

The investigations of the Laboratory show that there may be a slight increase in hardness, detectable by the soap method.

The following table was obtained by averaging the results of the hardness determinations for all samples receiving the same dose of hypochlorite.

TABLE 25. AVERAGE HARDNESS OF WATER WHEN TREATED WITH DIFFERENT DOSES OF HYPOCHLORITE.

(Results in parts per million).

Total (not consecutive) days each dose was used.	Available Chlorine parts per million.	Raw River Water.	Treated Water at Pump.	Intake at Reservoir	Increased Hardness between River and Reservoir.
15	0.3	29.1	29.7	29.4	0.3
6	0.4	29.7	30.5	30.1	0.4
9	0.5	28.7	30.8	29.9	1.2
9	0.6	34.5	34.9	34.7	0.2
20	0.7	44.9	45.3	45.4	0.5
30	0.8	57.7	58.9	59.1	1.4
5	0.9	48.6	50.0	50.3	1.7

The results show a slight increase in hardness of the pump and reservoir intake samples over the river water in each case. These figures should be interpreted with caution, however, for the number of days on which each dose of chlorine was used are *not consecutive days,* and the samples thus grouped on the basis of the dose were subject to varying conditions of temperature, rainfall, turbidity, etc. Beyond the conclusion drawn above, therefore, it would be unsafe to make deductions from these figures.

It will be noticed that the hardness is, on the average, diminished between the pump and reservoir, and the question arises whether or not this reduction continues in the reservoir under the action of the air, sedimentation and storage. As already noted, it is impossible to assign to the final tap water any definite dosing of hypochlorite, except in certain cases, which will be discussed later, but it seems fair to compare the average hardness of the tap water for the entire period with that of the water from the other points of investigation.

TABLE 26. AVERAGE HARDNESS OF WATER FOR ENTIRE PERIOD, (95 DAYS).

(Parts per million).

River Water.	Treated Water at Pump.	Intake at Reservoir.	Tap in Laboratory.
42.9	44.2	44.1	43.1

The action of sedimentation or other agencies, therefore, reduces the hardness somewhat during the time of storage, leaving the slight increase of 0.2 parts per million in the tap water over the river water.

Further data on this point may be obtained by comparing the hardness of the various samples taken at times when the same dose of bleach was used for several consecutive days. Three such periods occur; one in March, when a dose of 0.3 parts per million was used for twelve consecutive days; in April and May, when a dose of 0.7 parts per million was used for sixteen consecutive days, with the exception of one day when it was reduced to 0.6 parts per million; and in June, July and August, when, for forty-eight days, with two exceptions, a dose of 0.8 parts per million was used.

Table 27 following, shows the average hardness of the water at the four points in the supply for these three periods.

TABLE 27 AVERAGE HARDNESS OF WATER WHEN SAME DOSE OF HYPOCHLORITE WAS USED FOR NUMEROUS CONSECUTIVE DAYS.

(Results in Parts per million).

Number consecutive days dose was used.	Available Chlorine used, parts per million.	Raw River Water.	Treated water at Pump.	Intake at Reservoir.	Tap in Laboratory.
12	0.3	30.0	30.9	30.7	30.0
16	0.7	35.1	35.6	35.8	36.1
48	0.8	67.7	69.6	69.5	67.6

This table indicates that when 0.3 parts per million and 0.8 parts per million of chlorine were used, the hardness of the tap water was practically the same as that of the river, while an increase of 1 part per million resulted during the period when a dose of 0.7 parts per million was used.

The question might arise, when studying the preceding tables, whether the increase in hardness bears any relation to the increased dose of hypochlorite, and whether the slight increase is due wholly to the bleach, or to some other agency. Such questions must be dismissed, as indeed must any speculation based on these slight increases of hardiness, when it is considered that the soap hardness method, by which the results were obtained, is not accurate to less than 0.1 cc of soap solution, which is equivalent to from 1 to 1.3 parts per million of hardness for the waters examined. Therefore, differences of less than 1 part per million may be disregarded as outside the accuracy of the method employed.

The only safe conclusion to be drawn from the above data. relating to the hardness, is that the use of bleaching powder as a water disinfectant, when used in quantities giving less than 1 part per million of available chlorine, does not increase the hardness of the water to any considerable extent.

In connection with this discussion of the hardness of the Trenton water, it is interesting to note the hardness of some of the bottle water supplies sold in Trenton.

The following table gives the average hardness of the Trenton tap water for the period investigated, and the hardness of various bottled waters secured from one analysis only.

TABLE 28.

Supply.	*Hardness.* (parts per million).
Trenton	43.1
Keystone	51.9
Arctic	29.1
Watchung	29.1
Echo	20.8
Great Bear	156.7
Artois	119.5
Polar Spring	22.2
Blue Mountain	6.7
Grey Rock	76.2

It is interesting to note the interference by high turbidity with the effect of the hypochlorite on bacterial reduction. Several cases occur where high turbidity, following heavy rains in the upper water shed of the Delaware or Lehigh Rivers, is accompanied by sudden increases in the bacterial content of the water, including both 20° and 37° organisms, with which the hypochlorite disinfection was sometimes unable to cope.

The first of these occurred at the time the investigation was begun; a heavy rain on February 27, 1913, raising the turbidity to 1300, its highest point during the entire period. This was accompanied by a large increase in bacteria, which was somewhat reduced by the bleach treatment. This condition existed for two days, the reduction being better on the second day when B. coli were reduced from 1000 per cc in the raw water to 6 per cc at the reservoir intake.

A similar condition was found after heavy rains about March 26th to 31st, when the height of the river and turbidity made it unwise to pump for several hours on March 28th. The turbidity rose from 10 to 650 in two days, the alkalinity and hardness proportionally being reduced and the bacteria increasing to 51,000 per cc at 20° C and 900 per cc at 37° C in the raw water. Red colonies were present, 100 per cc, and B. coli in the bile tubes were indicated in 0.1 cc, or 100 in 10 cc. As the pumps were not in use, no figures for the reduction of bacteria could be obtained on this day.

The turbidity was high on April 28th and 29th, on May 23rd and on August 4th, each date showing a large increase in bacteria. On the two latter dates, the reduction of bacteria was pronounced. On May 23rd, with a turbidity of 290, the reduction of 20° organisms between the river and pump was 99%, of the 37° organisms 92% and of B. coli over 99%. The water at the reservoir intake on this date did not show quite as good results as that at the pump.

On August 4th, with a turbidity of 500, the reduction between river and pump was 91% for 20° bacteria; 63% for 37° bacteria; 100% for red colonies at 37°, and for B coli, over 99%.

With the exception of times of high turbidity, when, in spite of a large percentage reduction, the number of B. coli found in the treated water may be large, the effectiveness of the hypochlorite as a disinfectant is unquestionable, as the next table shows.

TABLE 29. REDUCTION OF BACTERIA IN TRENTON WATER BY TREATMENT WITH HYPOCHLORITE.
Average for 95 days.
(Parts per million).

	Raw River Water.			Intake at Reservoir.			Tap in Laboratory.		
	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.
Bacteria per cc. 20°C.........	60,000	68	5,600	8,500	2	261	4,500	16	356
Bacteria per cc. 37°C.........	20,000	6	600	1,330	0	57	510	0	76
Red Colonies. . .	500	0	32	17	0	0.5	5	0	0.3
B. coli in 10 cc.	1,000	10	263	20	0	1.6	10	0	3

This table was obtained by averaging all counts of the samples indicated for 95 days, with the exception of three counts. The count of 58,000 at 20° C of the tap water on March 3rd; the count of 60,000 at 20° C of the raw water on February 28th, and the count of 20,000 at 20° C of the water from the reservoir intake on February 28th, were discarded to secure a really representative average.

The reductions in per cent are as follows:

TABLE 30.

	At Reservoir Intake.	*At Tap in Laboratory.*
Tota' at 20°C...........	95%	93.6%
Total at 37°C...........	90.5%	87%
Red Colonies..	98.4%	99%
B. Coli....	99.4%	99%

When it is considered that these reduction percentages are for a raw water treated with hypochlorite without previous settling or precipitation, and several samples of high turbidity and bacterial content were included, the efficiency of this method of disinfection will be appreciated.

TABLE 31.—SUMMARY OF CHEMICAL
ON HYPOCHLORITE TREAT

DATE.	Available Chlorine. parts per million.	Weather.	Temperature of water	Turbidity.				Alkalinity.				Hardness.			
				Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.
Feb. 28.	0.5	....	....	1,300	1,000	700	...	16	16	16	...	32.0	45.9	40.3	....
Mar. 1.	.5	Cloudy...	....	350	350	350	...	26	27	27	...	43.1	47.4	41.6	....
" 3.	.6	Fair	....	50	50	50	...	15	15	17	22	23.6	23.6	23.6	30.2
" 4.	.3	Fair.....	....	30	30	30	60	15	15	15	20	23.4	23.4	23.4	29.9
" 5.	.3	Fair.....	....	20	25	20	40	19	18	19	19	26.0	26.0	26.0	29.9
" 6.	.3	Fair.....	....	20	....	20	40	20	.....	21	18	28.6	....	32.5	27.3
" 7.	.3	Fair.....	....	20	25	25	40	22	21	23	24	27.3	29.9	29.9	28.6
" 8.	.3	....	....	10	10	10	30	21	23	23	21	29.9	29.9	31.2	28.6
" 10.	.3	Fair.....	....	10	10	10	25	26	27	26	21	33.8	35.1	33.8	29.9
" 11.	.3	Rain.....	....	70	100	30	15	26	24	24	24	33.8	35.1	36.4	31.2
" 12.	.3	Fair.....	....	20	25	25	25	24	24	24	23	35.1	35.1	33.8	31.2
" 13.	.3	Rain.....	....	15	15	15	25	21	21	22	23	31.2	31.2	32.5	31.2
" 14.	.3	Rain.....	....	25	25	25	35	18	19	19	22	27.3	27.3	27.3	31.2
" 15.	.3	Rain.....	....	300	300	....	30	23	23	...	22	33.8	36.4	....	31.2
" 17.	.5	Fair.....	....	50	50	50	30	11	11	12	19	19.5	19.5	19.5	28.6
" 18.	.5	Fair.....	5.5°c.	30	40	40	40	12	12	12	17	20.8	20.8	20.8	27.3
" 19.	.4	Fair.....	6.5°	20	20	20	30	15	15	16	17	22.1	23.4	22.1	27.3
" 20.	.4	Rain.....	7.0°	70	70	25	40	16	16	17	17	24.7	26.0	24.7	26.0
" 24.	.3	Fair.....	9.0°	15	20	20	30	17	17	19	17	22.1	22.1	22.1	26.0
" 25.	.3	Cloudy...	10.5°	10	10	10	30	19	19	20	19	26.0	26.0	26.0	26.0
" 26.	.3	Rain.....	12.5°	10	15	15	25	17	17	21	19	28.6	28.6	27.3	28.6
" 27.	.3	Cloudy...	13°	60	80	80	25	19	19	21	19	29.9	29.9	29.9	29.9
" 28.	....	Fair.....	....	650	Pumping because of	stopped turbidity	50	12	Time Fresh	of et.	18	22.1	....	....	28.6
" 31.	.6	Fair.....	7.5°	30	30	30	40	14	15	15	15	24.7	24.7	26.0	26.0
April 1.	.6	Fair.....	8.5°	20	25	25	30	15	15	16	15	27.3	27.3	27.3	26.0
" 2.	.6	Fair.....	8.5°	20	25	30	40	17	16	16	15	28.6	28.6	29.9	27.3
" 3.	.5	Fair.....	8.7°	15	20	20	30	17	17	17	17	28.6	29.2	29.9	29.9
" 4.	.5	Fair.....	10°	10	10	10	25	18	19	20	16	32.5	29.9	31.2	27.3
" 7.	.4	Fair.....	10°	15	15	20	25	20	23	21	20	32.5	32.5	32.5	29.9
" 8.	.4	Fair.....	9°	15	15	15	20	21	23	22	20	32.5	32.5	32.5	29.9
" 10.	.4	Fair.....	8.5°	10	10	10	15	25	25	25	21	32.5	33.8	33.8	33.8
" 11.	.4	Rain....	9°	5	10	10	15	26	26	26	22	33.8	35.1	35.1	32.5
" 14.	.5	Fair.....	10°....	20	25	25	20	18	18	18	22	27.3	27.3	28.6	32.5
" 15.	.5	Fair.....	11°	10	15	15	15	17	19	19	21	27.3	28.6	28.6	31.2
" 16.	.5	Rain.....	11.5°	40	40	40	20	19	20	20	20	27.3	28.6	28.6	31.2
" 17.	.6	Fair.....	11.5°	35	35	35	25	20	20	20	20	29.9	32.5	31.2	28.6
" 18.	.6	Fair.....	13°	20	20	20	25	20	21	21	19	32.5	32.5	32.5	33.8
" 21.	.7	Fair.....	12°	15	15	15	15	26	27	26	22	36.4	36.4	36.4	33.8
" 22.	.7	Fair.....	11.5°	10	10	10	20	26	26	26	25	37.7	39.0	37.7	32.5
" 23.	.7	Fair.....	13°	5	10	10	15	27	29	27	24	40.3	40.3	41.6	36.4
" 24.	.7	Fair.....	13.5°	5	5	5	10	27	28	28	26	36.4	37.7	37.7	36.4
" 25.	.7	Fair.....	14.5°	5	5	5	10	29	29	30	26	42.9	42.9	42.9	37.7
" 28.	.6	Rain.....	16°	480	600	500	15	24	24	26	29	33.8	35.1	35.1	39.0
" 29.	.7	Fair.....	14°	240	250	280	50	21	16	17	28	31.2	31.2	33.8	39.0
" 30.	.7	Fair.....	13.5°	60	70	70	70	17	17	19	27	29.9	29.9	29.9	37.7
May 1.	.7	Fair.....	14°	25	30	30	40	20	18	18	23	28.6	29.9	29.9	33.8
" 2.	.7	Fair.....	15°	15	20	20	30	21	21	21	26	32.5	32.5	32.5	36.4
" 5.	.7	Fair.....	18°	10	15	15	30	26	25	22	24	33.8	33.8	35.1	33.8
" 6.	.7	Fair.....	18.5°	10	15	15	20	26	26	26	22	37.7	39.0	36.4	36.4
" 7.	.8	Fair.....	19°	5	10	10	20	28	28	28	25	39.0	41.6	41.6	37.7
" 8.	.8	Fair.....	18°	5	10	10	20	26	27	29	29	37.7	37.7	37.7	37.7
" 9.	.8	Fair.....	17.5°	5	10	10	15	27	28	28	25	41.6	41.6	41.6	39.0
" 12.	.9	Fair.....	17°	5	10	10	10	29	30	30	27	45.7	47.1	47.1	39.0
" 13.	.9	Fair.....	15°	5	5	5	10	32	33	33	27	42.9	45.7	45.7	42.9
" 14.	.9	Fair.....	16.5°	5	....	....	...	35	35	33	30	51.4	54.3	52.9	41.6
" 15.	.9	Fair ...	16°	5	5	5	10	34	37	36	32	51.4	50.0	51.4	47.1
" 16.	.9	Fair.....	17°	5	5	5	10	38	38	39	30	51.4	52.9	54.3	42.9
" 19.	.8	Fair.....	17°	5	5	5	10	38	38	38	34	52.9	54.3	54.3	45.7
" 20.	.8	Fair.....	17°	5	5	5	10	40	39	39	35	60.0	52.9	58.6	50.0
" 21.	.8	Fair.....	17°	5	10	10	5	39	40	39	34	58.6	58.6	58.6	48.6
" 22.	.6	Rain.....	16.5°	5	5	5	5	39	39	39	36	57.1	57.1	57.1	51.4

AND BACTERIOLOGICAL RESULTS
MENT OF TRENTON WATER.

Bacteria per c.c. at 20° c.				Bacteria per c.c. at 37° c.								B. Coli (presumptive test) in 10 c.c.			
				Total Colonies.				Red Colonies.							
Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.
60,000	16,500	20,000	......	1,330	....	1,330	....	....	....	0	....	100	100	20	.....
30,000	4,000	1,000	......	1,500	340	400	....	....	0	0	....	1,000	40	6	.....
6,500	820	90	58,000	250	44	60	240	60	0	0	0	10	0	2	0
2,200	1,030	170	940	400	110	70	108	12	0	0	0	100	2	0	4
3,200	220	240	......	115	60	50	68	12	0	0	0	100	4	2	2
2,400	......	107	220	40	....	26	85	1	....	0	0	10	.....	0	2
3,600	320	100	190	50	43	51	75	3	0	0	1	100	0	0	0
1,520	90	55	185	66	23	22	90	4	0	0	0	10	0	0	0
1,400	120	54	260	25	5	70	41	0	0	0	0	10	0	0	2
5,800	900	230	300	210	150	35	56	0	0	0	0	100	2	4	0
1,870	120	93	190	97	54	40	67	8	0	0	0	10	0	2	2
860	50	22	140	35	26	25	28	14	0	0	1	10	0	4	0
4,500	100	70	750	87	40	30	50	10	0	0	0	10	2	0	0
42,000	21,000	......	2,000	1,000	300	....	51	140	15	....	0	100	10	.....	2
5,100	260	120	550	140	115	96	100	25	0	0	0	10	0	4	4
5,300	140	80	1,450	106	53	60	100	13	0	0	0	100	2	0	2
1,050	140	......	390	50	44	....	100	12	0	....	1	100	2	.....	0
7,700	1,170	37	540	560	120	24	90	20	0	0	1	100	6	0	0
1,260	680	110	285	44	31	40	82	2	0	0	0	100	6	2	2
1,900	125	88	820	50	18	26	28	9	0	0	0	100	0	2	2
1,600	60	106	350	55	23	28	57	23	0	0	1	100	0	0	4
22,000	11,000	740	520	1,250	380	106	76	150	16	0	0	1,000	10	2	4
51,000	......	......	2,600	900	....	....	130	70	....	....	3	100	.....	.....	10
2,100	350	70	360	125	125	32	130	14	0	0	0	10	2	0	8
1,400	160	70	200	170	34	27	76	44	0	0	0	1,000	0	0	2
1,900	70	54	150	120	30	34	66	16	1	0	0	100	4	4	0
600	50	34	115	62	25	31	55	25	0	1	0	1,000	0	0	4
5,000	42	53	320	100	21	30	50	9	0	0	0	100	0	0	0
1,620	1,250	106	125	530	90	45	70	30	9	0	0	100	10	0	0
4,000	45	20	133	350	53	70	50	10	0	0	0	100	2	0	2
1,640	26	21	50	......	.....	.....	....	....	0	0	0	10	0	2	4
2,950	80	49	4,500	......	....	....	....	120	0	0	0	100	0	2	0
4,000	106	130	113	260	34	54	80	10	0	2	0	100	2	2	4
3,600	30	21	100	90	22	27	30	22	0	0	0	10	0	0	0
10,500	4,400	250	75	630	175	135	32	90	24	8	0	1,000	10	8	0
6,500	108	132	128	220	83	92	67	27	0	0	0	100	0	0	0
5,000	2,500	270	200	480	32	30	80	9	0	0	0	100	2	0	0
820	26	20	50	55	26	15	38	7	0	0	0	100	0	0	0
68	14	31	100	110	20	8	60	16	0	0	0	100	0	0	0
2,650	24	22	57	120	16	15	40	12	0	0	0	100	0	0	0
3,700	21	17	63	125	14	25	47	7	0	0	0	100	0	0	4
6,000	21	13	72	90	10	11	31	10	0	0	0	100	0	0	2
50,000	24,000	4,500	60	3,600	1,500	1,000	14	300	70	10	0	1,000	10	10	4
20,000	850	1,200	530	1,000	140	150	90	50	2	1	0	100	8	10	8
6,000	350	100	830	85	25	29	80	10	0	0	0	1,000	4	2	6
2,200	54	56	200	80	42	25	70	10	0	0	0	1,000	0	0	2
10,000	3,000	550	1,000	220	125	75	80	12	4	1	0	*10	*10	*10	*4
2,400	1,850	500	350	130	200	40	75	14	7	0	0	†10	†100	†10	†4
3,400	100	40	350	95	17	22	55	16	0	0	2	10	0	2	2
2,500	190	600	180	1,700	25	24	42	25	1	0	0	100	0	0	6
6,000	36	8,500	260	500	16	800	70	16	0	17	0	10	0	10	6
7,700	24	140	200	740	14	13	43	10	0	0	0	1,000	0	0	2
3,000	8	11	57	132	5	11	25	6	0	0	0	a100	a0	a0	a0
880	17	25	47	46	14	9	14	7	0	0	0	10	0	0	0
90	36	11	30	46	7	23	30	5	0	0	0	10	0	0	0
8,500	21	......	40	260	6	8	41	11	0	0	0	10	0	0	0
3,500	7	2	41	18	0	0	0	0	0	0	0	100	0	0	2
1,500	7	13	24	25	0	0	0	0	0	0	0	100	2	0	0
400	6	8	30	5	1	0	1	0	0	0	0	10	0	0	2
400	11	21	20	27	0	0	0	5	0	0	0	10	0	0	4
7,200	4	7	16	700	9	6	11	20	0	0	0	100	0	0	4

*Hypo pipe clogged.
†Hypo pipe broken May 3. Temporary pipe used.
aNew hypo pipe completed.

TABLE 31.—SUMMARY OF CHEMICAL AND HYPOCHLORITE TREATMENT OF

DATE.	Available Chlorine. parts per million.	Weather.	Temperature of water	Turbidity.				Alkalinity.				Hardness.			
				Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.
May 23.	.6	Rain.	18° C	290	300	300	10	34	34	34	36	52.9	52.9	50.0	54.3
" 26.	.7	Fair.	17.5°	10	10	10	40	30	30	30	37	41.6	41.6	41.6	30.0
" 27.	.7	Rain.	17.5°	10	30	20	60	27	27	27	34	42.9	39.0	39.0	51.4
" 28.	.7	Rain.	16.5°	5	10	10	20	27	27	27	34	39.0	39.0	39.0	42.9
" 29.	.8	Fair.	16.5°	15	20	20	20	29	29	28	32	39.0	39.0	39.0	44.3
June 2.	.8	Fair.	19.5°	5	10	10	15	22	24	23	29	31.2	31.2	32.5	39.0
" 3.	.8	Fair.	20°	5	5	5	10	25	25	24	26	32.5	33.8	32.5	39.0
" 4.	.8	Fair.	21°	5	5	5	15	26	27	27	29	36.4	36.4	37.7	40.3
" 6.	0.8	Fair.	21.5°	5	5	5	10	29	29	29	28	37.7	39.0	41.6	37.7
" 16.	.8	Fair.	25.5°	0	0	0	5	39	39	39	35	48.6	48.6	48.6	42.9
" 17.	.7	Fair.	26°	5	5	5	5	39	39	39	34	50.0	50.0	50.0	45.7
" 23.	.7	Fair.	24°	5	10	5	5	48	48	47	41	72.9	72.9	72.9	60.0
" 24.	.7	Fair.	24°	5	5	5	5	46	45	47	44	67.1	70.0	70.0	58.6
" 25.	.7	Fair.	24.5°	5	5	5	5	44	43	43	41	60.0	60.0	58.6	55.7
" 26.	.8	Fair.	25°	5	5	5	5	42	44	44	44	55.7	57.1	57.1	55.7
" 27.	.8	Fair.	25°	5	5	5	5	42	45	45	45	54.3	54.3	54.3	57.1
" 30.	.8	Fair.	25.5°	5	5	5	5	48	48	48	44	57.1	57.1	57.1	52.9
July 1.	.8	Fair.	26.5°	10	20	30	30	48	45	47	44	60.0	58.6	58.6	58.6
" 2.	.8	Fair.	28.5°	15	15	15	5	44	47	47	44	57.1	57.1	57.1	57.1
" 7.	.7	Fair.	25°	20	20	20	25	51	51	51	48	68.6	68.6	68.6	62.9
" 8.	.7	Fair.	24.5°	10	10	15	10	53	53	53	48	68.6	72.9	72.9	72.9
" 9.	.8	Fair.	24.5°	10	15	20	10	53	53	53	53	74.3	78.6	75.7	70.0
" 15.	.8	Fair.	24°	10	10	10	10	48	51	47	51	77.1	80.0	77.1	77.1
" 17.	.8	Fair.	25°	10	10	10	10	54	54	54	52	81.4	81.4	81.4	74.3
" 18.	.8	Fair.	25.5°	10	10	10	10	53	53	51	52	78.6	81.4	80.0	77.1
" 21.	.8	Fair.	25°	5	5	5	5	56	57	56	55	70.0	72.9	75.7	72.9
" 22.	.8	Fair.	25.5°	5	5	5	5	57	56	56	54	77.1	77.1	78.6	77.1
" 24.	.8	Fair.	26°	5	5	5	5	59	59	59	54	81.4	81.4	81.4	78.6
" 25.	.8	Fair.	25°	5	5	5	5	62	60	59	55	80.0	87.1	85.7	85.7
Aug. 1.	.8	Rain.	28°	5	5	5	5	56	56	54	55	82.9	84.3	85.7	81.4
" 4.	.8	Fair.	24.5°	500	450	450	110	37	38	37	47	48.6	51.4	51.4	51.4
" 5.	.8	Fair.	24.5°	125	125	125	190	37	37	37	45	57.1	58.6	57.1	60.0
" 6.	.8	Fair.	25°	70	70	70	120	42	42	41	42	57.1	58.6	60.0	60.0
" 12.	.8	Fair.	25°	30	30	30	40	54	54	54	55	67.1	74.3	74.3	68.6

BACTERIOLOGICAL RESULTS ON TRENTON WATER.—Continued.

Bacteria per c.c. at 20° c.				Bacteria per c. c. at 37° c.								B. Coli. (presumptive test) in 10° c.c.			
				Total Colonies.				Red Colonies.							
Raw river water.	Treated water at pump.	Intake at reservoir	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.	Raw river water.	Treated water at pump.	Intake at reservoir.	Tap in laboratory.
60,000	560	770	43	3,000	250	220	16	400	0	....	0	1,000	2	4	0
2,500	49	36	240	100	23	45	110	20	1	0	0	100	0	0	2
2,000	145	110	250	63	31	24	65	9	0	0	0	10	2	2	4
100	19	28	68	70	16	18	45	12	0	0	0	10	0	0	0
17,000	86	125	74	370	48	39	43	35	1	0	0	100	2	2	0
700	42	31	65	70	27	14	28	5	0	0	0	100	0	0	4
210	14	32	44	16	7	13	36	0	0	0	0	10	0	0	0
1,200	12	30	67	120	10	14	27	7	0	0	0	100	0	0	4
2,400	47	24	67	170	16	14	32	4	0	0	0	10	0	0	6
1,500	33	16	62	390	14	9	31	3	0	0	0	100	0	0	10
2,500	27	20	89	6	0	0	19	0	0	0	0	100	0	0	10
650	23	40	200	670	20	26	106	....	....	....	....	100	0	0	0
1,400	15	23	350	250	22	27	80	4	0	0	0	100	0	0	2
310	20	31	300	185	23	16	170	7	0	0	0	10	0	0	0
420	24	12	340	130	31	18	170	3	0	0	0	10	0	0	0
2,700	45	30	950	260	18	17	370	5	0	0	0	100	4	0	2
1,250	22	35	610	430	19	24	510	0	1	0	0	100	0	2	0
1,000	33	52	825	40	0	1	17	7	0	0	1	10	0	0	0
1,140	90	45	144	230	110	120	115	56	1	6	4	1,000	0	0	6
820	45	42	300	300	60	44	53	11	3	1	5	1,000	0	2	6
730	36	40	560	200	75	45	72	20	2	0	2	100	2	0	8
810	40	50	210	350	40	56	52	50	0	0	3	1,000	0	4	10
2,000	40	40	360	2,300	37	33	270	40	0	0	5	.....	10	2	6
1,800	55	32	200	20,000	26	32	88	500	0	0	0	1,000	4	2	6
2,500	25	31	180	500	19	13	120	10	0	0	0	1,000	0	0	0
600	16	14	84	300	23	16	80	2	0	0	0	100	0	0	2
650	14	18	120	250	8	18	66	4	0	0	0	1,000	0	0	0
90	10	13	44	750	9	20	65	1	0	0	0	10	4	0	0
1,700	18	33	50	720	23	18	50	10	0	0	0	1,000	0	0	2
1,900	27	21	100	74	10	12	36	8	0	0	0	10	0	0	8
6,000	540	420	310	1,000	370	440	135	70	0	0	0	1,000	4	2	8
7,700	550	180	700	800	450	210	250	40	0	0	0	1,000	0	2	8
3,750	110	125	250	300	95	100	140	30	0	0	0	1,000	0	0	10
230	43	60	280	115	50	56	6	3	0	0	0	10	0	0	2

SHELLFISH.

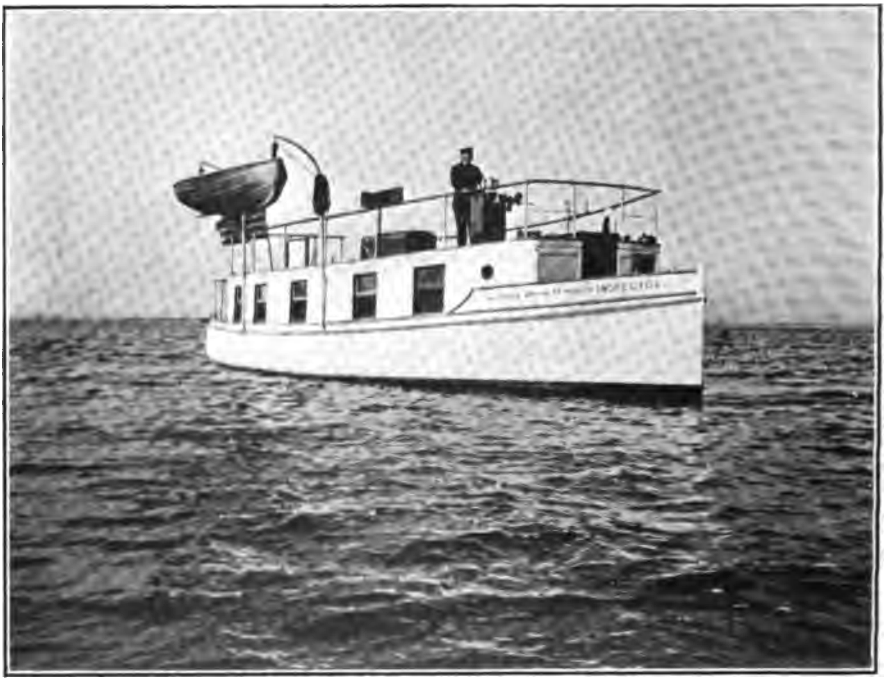
One of the important industries in the State of New Jersey from a public health standpoint is the oyster industry. When it is considered that the annual oyster crop of the State is valued at $4,000,000 some idea of its magnitude can be obtained.

Oysters are favorite articles of diet, being eaten raw by a very large number of people. It therefore becomes a matter of importance for the public to be assured of their freedom from infectious material.

The inspection and regulation of oyster beds is attended with many difficulties. This is due in part to the location of the beds, which are to be found in many rivers, bays and thoroughfares, extending along the coast line from the Cohansey River to Newark Bay, a distance of nearly 200 miles. In many of these, polluting matter of various kinds quite often finds its way, and while the danger of pollution of the shellfish is negligible in many cases because of tremendous dilution, in a few instances it is sufficiently serious to cause some concern. Careful sanitary surveys of the beds and the collection and examination of many oyster and water samples are therefore necessary.

While many of the charges, more or less sensational in character which have been made against the oyster as a carrier of disease germs are based on little evidence, it has nevertheless been shown that oysters when exposed to infection may disseminate typhoid fever. It is, therefore, particularly important that oysters should not be grown or floated in water into which is discharged untreated sewage.

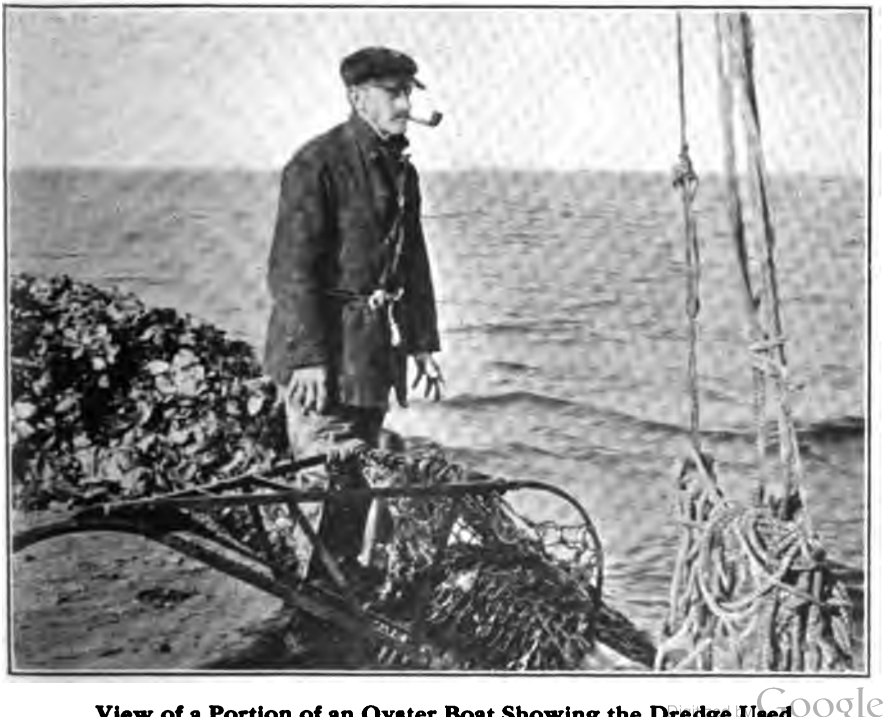
MAURICE RIVER SECTION: The oyster industry of the Maurice River Cove was described at length in the report of the State Board of Health for 1911. Attention was directed in that report to certain unsanitary conditions, affecting the purity of the river, which had formerly existed in that section, but which, by the united efforts of the State Board and the oystermen, had been, for the most part, abated. No one, not familiar



N. J. State Board of Health Oyster Inspection Boat, "Inspector."

Oyster Floats on the Maurice River.

Gathering Oysters at Low Tide.



View of a Portion of an Oyster Boat Showing the Dredge Used to Rake Oysters from the Bottom.

with the conditions which existed in the vicinity of the shipping houses at Maurice River and Bivalve five years ago, can realize what a change for the better has taken place. On the Bivalve side of the river, all known sources of pollution of a dangerous character have been removed. On the Maurice River side, much has been accomplished in the way of improvement, although a great deal still remains to be done. In Bivalve, which is located in Commercial Township, the improved conditions are due very largely to the intelligent and aggressive work of the local board of health. This body has been active in abating all sources of pollution, not only in Bivalve, but also in the nearby Town of Port Norris, which is on the watershed of the Maurice River, and in the surrounding country. The Board of Health of Maurice River Township, in which Maurice River is located and which also includes Leesburg and Dorchester, two small villages several miles up the river, has manifested little interest in cleaning up the river, and has done practically nothing toward the abatement of obvious pollutions, several of which exist within the township. An inspection of this section, made by Mr. D. C. Bowen, Chief Sanitary Inspector, in September, 1913, disclosed a number of objectionable conditions about the shipping houses. Mr. Bowen says:

> "The oyster shipping centre at Maurice River presents the most objectionable sanitary conditions found along the river front. It is estimated that about 150 persons find employment in the oyster shipping business conducted at Maurice River, exclusive of transit visitors calling there on business for other purposes. In addition to these, the crews of about eighty oyster boats that ship from this point are frequently about the docks. There are but two or three families who permanently reside at the settlement, the greater number of the individuals working at the docks spending nights and Sundays on the mainland.
>
> "The main buildings at Maurice River are a continuous row of shippers' offices and docks extending six or seven hundred feet along the river front. These buildings and docks are owned by the Pennsylvania Railroad Company. No water closets or toilet facilities are provided in these buildings, the company maintaining two public privies that stand back about 100 feet from the river and near the upper end of the filled ground on which most of the buildings at Maurice River stand. The railroad company also provides a separate privy for the use of patrons of a boarding house

owned by the company. These three privies are constructed with portable metallined wooden boxes beneath the seats. The boxes are removed at intervals to the mainland by the railroad section gang and their contents are said to be buried on the Cadwalader Farm. The foreman of the section gang informs me that there are no stated intervals for cleaning these privies, the boxes being removed when full. A much needed cleaning of both boxes and privy buildings took place on the day following this inspection. The mainland, a mile or more distant from Maurice River, is reached only by railway. There being no road for vehicles or pedestrians, it is inconvenient to dispose of refuse material except by casting it on the surrounding marsh land or directly into the river.

"There are four privies standing on the marsh just back of the filled ground that are maintained by individuals for private use.

"I am informed by the owners of the shacks and private privies above referred to that they pay to the railroad company small rentals for the ground upon which the buildings stand, and that they expected the railroad company to furnish scavenger service, which has not been rendered.

"There are no privy accomodations at a blacksmith shop, nor at a machine shop situated 100 feet or so below the shipping docks. The managers of these two buildings stated that the persons employed therein are at present using the public toilets provided by the railroad company, though very inconveniently located. It was stated that a privy with pails and daily scavenger service would soon be erected for the joint use of persons in the blacksmith shop and in the machine shop.

"There are several other shacks and a house-boat or two moored at Maurice River without privy accomodations, the occupants claiming to use the public toilets maintained by the railroad company.

"A meadow bank besides a drainage ditch in the marsh at the rear of the blacksmith shop above referred to is apparently used as a public privy. Either side of this bank for a distance of a hundred feet was covered with deposits of human excrement, indicating frequent use of the bank by numerous persons for this purpose. This fecal matter falls directly or is washed by rains into the water in the ditch which is drained through a sluice discharging into the river in Northwest Reach, a few hundred feet below the oyster floats in the lower end of Long Reach. Surface drainage from around the shacks referred to and the privies at their rear also washes directly into the meadow ditch and thence to the river.

"I am informed by the proprietor of the restaurant that some thirty to forty persons are fed there daily. All refuse from the kitchen and waste liquids from the house are cast upon the ground at the rear and at one side of the building. On the day of this inspection a hundred square feet or more of ground space was covered several inches deep with offensive decomposing garbage; and decomposing waste liquids from the house drain formed an offensive pool nearby, thus adding further pollution to the meadow run-off. A general

> **clean up, which took place on the day following this inspection, temporarily improved the appearance of conditions about the buildings.**
>
> **"There is a lack of privy accomodations for the use of persons about the docks and the public privies maintained by the railroad company are inconveniently located, many persons dependent upon their use having to go seven or eight hundred feet to reach them.**
>
> **"By reason the inaccessibility of the present water closets and to the fact that they are not maintained in a more cleanly condition, is assigned by some as the reason for the prevalent habit of stooling on the ground in the open."**

It will be seen that the particularly objectionable practice of stooling on the ground adjacent to a ditch which leads into the river not far from the floats is due largely to the inadequate toilet accommodations at present provided. A sufficient number of properly constructed privies, located at convenient points, should be built so that this practice can be stopped. These privies should be regularly inspected by the local board of health, and a scavenger service should be provided, under the supervision of that board, and the materials removed and taken to some point where they can be disposed of without polluting the river.

Inspections by representatives of this Division, and also by Mr. Bowen, show that there are very few sources of direct pollution either in Dorchester or Leesburg, and those which were discovered have been, for the most part, abated.

About two miles above the shipping houses is located the Fiefield Fish and Fertilizing Company's factory. This is a fish rendering establishment, on the banks of the river, where menhaden are cooked and manufactured into oil and fertilizer. The toilet facilities provided at this factory consist of privies located a sufficient distance from the stream to render pollution from them very improbable. The water from the cooking vats, containing considerable highly putrescible organic matter, is run into the river. This, however, is fresh from the cooking vats and practically sterile, and is, therefore, not dangerous polluting matter. One steamer, with a crew of twenty-five men, brings fish to the plant, and lies at the dock in front of the factory for considerable intervals of time. No toilet facilities are provided on this vessel. It is stated that the men on the boat use the privies on shore when the boat is lying at the dock. Toilet facilities should be provided on this boat in the shape of tight receptacles, which could be taken ashore, emptied and cleansed.

The scavenger system of disposing of refuse from the oyster boats, mentioned in last year's report, has been in operation throughout the oyster season, and has proved very successful. It is maintained by the oyster shippers themselves. Each oyster boat is provided with at least two galvanized iron pails with covers, which are kept in covered boxes on deck and which are used for toilet purposes by the crew. The scavenger boat is a power driven scow, similar to the scows in which oysters are hauled from the floats to the shipping houses, and large enough to carry over one hundred pails. This boat goes up and down Long Reach from boat to boat during the day, gathering up the pails which have been used and leaving clean ones in their places. Late in the afternoon, when the pails have all been collected, the scavenger boat goes up the river to a dock just below and across the river from the fish factory, where the pails are put ashore. Early the next morning they are emptied into a tight tank wagon, washed out thoroughly with milk of lime, and the washings from the pails also placed in the tank wagon. The wagon is then hauled to a farm about a mile and a half from the river, where the contents are dumped on the ground and ploughed under. The clean pails are placed aboard the scavenger boat and ultimately returned to the oyster boats.

This scavenger system has been carefully watched during the year, and our inspections show that it is being carried on in a very satisfactory manner. Almost all the oyster boats were provided with pails by the owners as soon as the Board's order became effective. It was anticipated that considerable difficulty would be experienced in compelling the crews on the oyster boats to use these pails. Very little trouble occurred, however, most of the men cheerfully complying with the rules. In five instances during the year, it was discovered that proper care was not taken to compel the use of the pails, and letters were sent to the captains of the boats at fault, calling their attention to the necessity for strict observance of the law, and pointing out that further violation of the rules would subject the offender to penalty. This was sufficient to correct the conditions which had been noted by our inspector.

During the year, frequent inspections have been made of the cars furnished by the Central Railroad of New Jersey and the Pennsylvania Railroad, for the transportation of oysters. Formerly, much trouble was experienced early in the season, because, at that time, most of the cars furnished were slatted cars used for transportating live stock. These cars in former years were frequently very dirty, containing decomposing accumulation of manure. At the present time, the cars are almost invariably clean. When cattle cars are furnished by the railroad, they are first scrubbed out and sprinkled thickly with lime. An occasional dirty car is still sent down, but the oyster shippers now refuse to use such cars until they have been thoroughly cleansed.

The practice of using dirty sacks for the shipment of oysters has entirely ceased. Oysters are now shipped from this point either in sacks which have been washed and dried before using, or in clean wooden barrels.

The work of the Division during the present year, in the Maurice River section, consisted in the examination of a considerable number of samples of water taken at various points between the head of navigation of the river at Millville and the point where the river empties into the Maurice River Cove. It is now believed that a sufficient number of samples have been examined to show with considerable precision the average bacterial content of the river. Between Millville and the mouth, a distance of about thirty miles, the stream is tidal throughout, and does not vary materially in volume during the year; the large amount of tidal water which gains entrance to the stream masking the fluctuations in the amount of fresh water which comes in at Millville, and to a lesser extent, at points below. The bacterial content of the water does not vary greatly during the year.

For convenience in locating the points at which samples have been taken, a map has been prepared, which will be found upon map folder opposite page 356 of this report, showing the method of dividing the river into four sections. Section 4 includes that portion of the river immediately adjacent to Millville. Sections 2 and 3 include that portion of the river down to a point just above Leesburg, and Section 1 reaches from this point to the mouth in Maurice River Cove. These sections are further subdivided so that points at which samples have been taken can readily be referred to on the map. The total number of samples collected in the Maurice River and Cove was 619. Of these, 71 were collected in the vicinity of Millville—Section 4. The bacteriological results on these samples were as follows:

TABLE 33.

Total number of samples	71	
Number showing presumptive test for B. coli in 1.0 cc.	71	100%
" " " " " " " " 0.1 "	71	100%
" " " " " " " " 0.01 "	58	81%
" " " " " " " absent	0	

In that portion of the river from Millville to the head of Long Reach where the oyster floats are located, included in Sections 1, 2 and 3, 227 samples were collected with the following results:

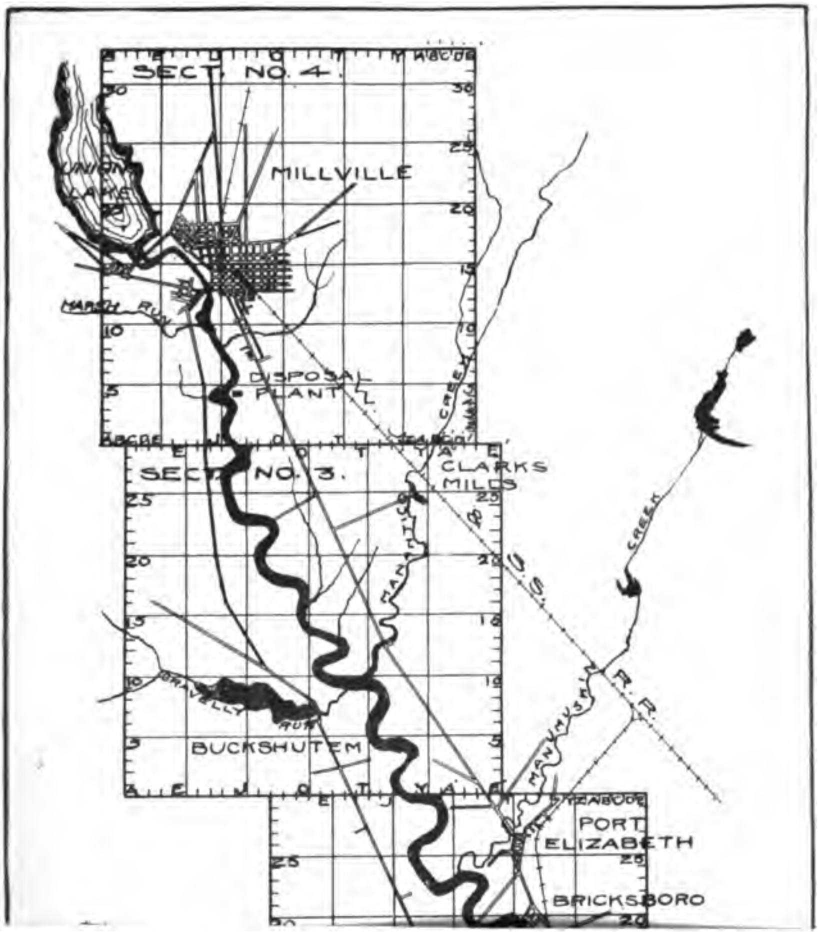
TABLE 34.

Total number of samples	227	
Number showing presumptive test for B. coli in 1.0 cc.	219	96%
" " " " " " " " 0.1 "	170	74%
" " " " " " " " 0.01 "	73	32%
" " " " " " " absent	8	3%

In Long Reach, 247 samples were collected with the following results:

TABLE 35.

Total number of samples	247	
Number showing presumptive test for B. coli in 1.0 cc.	208	84%
" " " " " " " " 0.1 "	103	41%
" " " " " " " " 0.01 "	23	9%
" " " " " " " absent	39	15%


SECT. NO. 4.
MILLVILLE
UNION LAKE
MARSH RUN
DISPOSAL PLANT
CLARKS MILLS
SECT. NO. 3.
MANANTICO CREEK
& U. S. R. R.
CREEK
GRAVELLY RUN
BUCKSHUTEM
MANUMUSKIN
PORT ELIZABETH
BRICKSBORO

From Long Reach to the mouth of the river and in the Cove. 60 samples were collected with the following results:

TABLE 36.

Total number of samples		60	
Number showing presumptive test for B. coli in	1.0 cc	48	80%
” ” ” ” ” ” ” ”	0.1 ”	17	28%
” ” ” ” ” ” ” ”	0.01 ”	6	10%
” ” ” ” ” ” ”	absent	12	20%

In the Delaware Bay about one mile from the shore between the mouth of the Maurice River and the mouth of the Cohansey River, 14 samples were collected with the following results:

TABLE 37.

Total number of samples		14	
Number showing presumptive test for B. coli in	1.0 cc	0	
” ” ” ” ” ” ” ”	0.1 ”	0	
” ” ” ” ” ” ”	absent	14	100%

An examination of these results shows that in the vicinity of Millville the pollution of the river, as indicated by the prevalence of B. coli, is greatest. The coli content of the river diminishes quite rapidly for a distance of three or four miles below the disposal plant at Millville. From there on to the mouth of the river, the coli content of the water is fairly uniform. It is difficult to attribute the numbers of B. coli which are found in the water, in Sections 1 and 2, to anything except drainage from cultivated lands. Below the sewage disposal plant at Millville, there are no pollutions of any importance, except those which have been described in detail earlier in this report. The surrounding country, however, is used for farming, this farmland all drains into the river, and many cattle are pastured on or near the banks.

During the coming season, if time permits, an effort will be made to ascertain the length of time which is required for water to flow from Millville to Long Reach. No reliable information on this subject is at present available, but an examination of the river tends to show that this time is considerable, as the river is both wide and deep for the greater portion of its length below

Millville, and the amount of fresh water which gains entrance to it, except in times of storm, is comparatively small. It is important that this time be ascertained, as it has a considerable bearing upon the importance of the pollution contributed to the river by Millville and the disposal plant.

Up to the present time, the sewage disposal plant at Millville has not been operated in a satisfactory manner.

The Millville authorities have been ordered by the Board to change their method of treatment, and to disinfect the sewage with hypochlorite before it reaches the river. Plans have been prepared for this disinfection plant, but it has not as yet been constructed, and until this is done, the plant cannot give a satisfactory effluent.

An examination of the bacteriological results, obtained on the samples of water above mentioned, shows that bacillus coli is present in considerable numbers in all sections of the river. This can hardly be interpreted to mean that in Long Reach, at the point where the oysters are floated, the river contains dangerous polluting matter. As has previously been stated, all direct visible sources of pollution of the river above Long Reach, with a few exceptions of minor importance, have been removed, and it is not conceivable that, under present conditions, any appreciable quantity of polluting material likely to contain typhoid bacilli can reach those portions of the river in which oysters are laid out.

During the present year, 156 samples of oysters were collected in the Maurice River section, of which 32 were salt oysters and 124 had been floated for various lengths of time. Each one of these samples represents at least five oysters, and the oysters were examined by the methods prescribed by the American Public Health Association. The results of these examinations are summarized as follows:

TABLE 38.

	Salt	%	*Floated*	%	*Total*	%
Total number of samples	32	..	124	..	156	..
Number having score of 23 and under	28	87	94	76	122	78
" " " " over 23	4	12	30	24	34	21
" " " " " 50	3	9	16	12	19	12

The table shows that over 75% of these oysters have scores of 23 or under, and that in only a few instances does the score reach 50. Most of these samples were collected during the warmer months, when the oyster scores would be at their highest point. It has, therefore, been concluded, taking all the various facts into consideration; the results of the sanitary survey; the examination of water samples; the examination of the oysters themselves, and a careful investigation into the prevalence of typhoid fever in the watershed of the river, that oysters taken from the Maurice River Cove and floated in the river can safely be used for human consumption.

Cohansey River: The Cohansey River is used for floating oysters which are grown on the western shore of the Delaware Bay in the State of Maryland. These oysters are taken from their beds, brought to Greenwich Pier, near the mouth of the Cohansey, in boats, floated there for from twelve hours to several days, depending upon the temperature of the water, and shipped from this point by rail. The Cohansey has not been investigated as thoroughly as has the Maurice River, as the industry there is by no means so extensive.

During the season, 171 samples of water were collected in the river. Of these, 116 were collected in the vicinity of Bridgeton, which is located at the head of navigation and about twenty miles above the point where the oysters are laid out. The bacteriological results on these samples were as follows:

TABLE 39.

Total number of samples		116	
Number showing presumptive test for B. coli in	1.0 cc.	116	100%
" " " " " " " "	0.1 "	108	93%
" " " " " " " "	0.01 "	70	60%
" " " " " " "	absent	0	

In the section of the river from one mile below Fairton to about one mile above Greenwich Pier, 18 samples were collected, and the following results were obtained:

TABLE 40.

Total number of samples		18	
Number showing presumptive test for B. coli in	1.0 cc.	18	100%
" " " " " " " "	0.1 "	10	55%
" " " " " " " "	0.01 "	2	11%
" " " " " " "	absent	0	

In the section of the river included in the point about one mile above Greenwich Pier and the mouth, 47 samples were collected with the following results:

TABLE 41.

Total number of samples		47	
Number showing presumptive test for B. coli in	1.0 cc.	44	93%
" " " " " " " "	0.1 "	24	51%
" " " " " " " "	0.01 "	4	8%
" " " " " " "	absent	3	6%

These figures show a somewhat higher B. coli content for the Cohansey than was found in the Maurice River. The City of Bridgeton has a system of sanitary sewers, and its sewage is treated in two disposal plants by disinfection with hypochlorite. Repeated examinations of these plants have shown that the treatment is usually efficient. A considerable proportion of the town, however, is served by sewers which are not yet connected with the disposal plants. Work is now in progress which will result in connecting these sewers with one or the other plant, and it is probable that within another year, no untreated sewage will be discharged into the river at Bridgeton. Below this point, there are no towns with systems of sewers.

No comprehensive sanitary survey has as yet been made of the river between Bridgeton and Greenwich. In the vicinity of the oyster floating region at Greenwich, a careful survey has been made, and all obvious sources of pollution have been removed.

No scavenger system has been instituted on the boats which operate on the Cohansey, because it has hardly seemed necessary. The shipping point at Greenwich Pier is only a short distance from the mouth of the river, the number of boats which bring oysters into the river is comparatively small, and ample toilet facilities are provided on shore, which the men may use.

Only a few samples of oysters have so far been collected in the Cohansey, and the scores of these oysters have been found to be low.

TUCKERTON SECTION: This section comprises Little Egg Harbor, Great Bay, and the thoroughfares connecting them.

For the past few years, oystermen in that part of the State covered by this section have complained of the poor quality of their oysters. This has caused the shipments to decrease rapidly and some of the dealers stopped shipping entirely. During the past year, the oysters were exceptionally good and attractive and the shipments have increased from an average of two carloads a day to about five carloads per day. Most of these oysters are shipped by train from Tuckerton and, when the season is good, a considerable quantity are transported by boat to Absecon. Most of the oysters gathered from the above mentioned bays and thoroughfares are floated in Tuckerton Creek, Big Creek, Absecon Creek, Mullica and Bass Rivers.

The only natural seed oysters of this section come from the mouth of the Mullica River. The majority of the seed oysters are obtained outside of the State and are planted in the above mentioned bays and thoroughfares and are taken up for market when they have grown to a proper size.

In order that a clear understanding may be obtained of the conditions prevailing in the Tuckerton Section, each of the bays from which salt oysters are obtained and each stream in which oysters are floated will be discussed separately.

LITTLE EGG HARBOR: This harbor is located east of Tuckerton and is bounded on one side by Long Beach, which separates it from the Atlantic Ocean. It extends north to Manahawken Bay and South to Great Bay, a distance of seven or eight miles, and is connected to both bays by thoroughfares. The oyster beds are located along the eastern shore north of Tuckerton Creek, in the thoroughfares connecting Great Bay with Little Egg Harbor and in the vicinity of Beach Haven. Although most of the oysters are obtained from these locations, they can be gathered in limited quantities in almost any part of the bay.

Inspections, made during other years, have shown that there was a small amount of polluting material from human beings entering this harbor. The Beach Haven sewers formerly emptied their contents directly into the Harbor, and several hotels and restaurants in Beach Haven, not connected with the sewers, still discharge their sewage into the bay. During the summer months, twelve or fifteen house boats were anchored within 500 feet of a few small beds near Beach Haven. During the past year, the Town of Beach Haven has installed a septic tank to receive its sewage, and the effluent is now emptied into the Atlantic Ocean, several hundred feet from the shore. In this way, the most important source of pollution has been removed. Plans, for connecting the above mentioned hotels and restaurants with the new sewer, are now being discussed and it is believed that this source of pollution will soon be removed.

It was reported during the past year, by the Beach Haven authorities, that certain of the oystermen were laying out oysters in floats under the hotels on Dock Street. An investigation showed that many of these floats were located only a short distance from where polluting material from several privy vaults gained access to the water. Under authority contained in Chapter 24 of the Laws of 1912, the Board issued an order forbidding this practice, and it has been rigidly enforced, with the aid of the local authorities.

On an island located near the center of the harbor, is a fish rendering factory, and, here, about seventy-five men are engaged in the manufacture of fish oil. An inspection of the factory showed that operations are started about the middle of May and continue to the middle of November. About thirty-five of the men live on the island and the rest are employed on the boat which supplies the factory with fish and which remains at the island a day or so at a time. There is but one toilet on the island and it empties directly into the bay. The nearest oyster beds are about one mile distance.

WATER SAMPLES FROM LITTLE EGG HARBOR.

BACTERIOLOGICAL RESULTS.

TABLE 42.

Total number of samples	28	
Number showing presumptive test for B. coli in 1.0 cc.	2	7%
" " " " " " " " 0.1 "	0	
" " " " " " " " 0.01 "	0	
" " " " " " " absent	26	92%

GREAT BAY: This is a large body of water located south of Little Egg Harbor. Large volumes of salt water enter almost directly into it through Little Egg Harbor Inlet, while fresh water, from the Mullica River and its branches, enters it on the western shore. There is no town of any size located near it, but several small villages are situated on the streams which empty into it. There is a large fish factory on an island about three miles from the inlet which employes about fifty men who live on the island for six months of the year. About one hundred men are employed on various boats which supply fish to the factory. These men live aboard the boats which tie up at the factory for various lengths of time. There is but one privy on the island and this empties directly into the bay.

Oysters are planted along the northern and eastern shores of the bay and there is a natural growth in the mouth of the Mullica River. Most of the oysters are tonged and shipped from Tuckerton by train, or are taken by boat to Big Creek and the Mullica River to be culled and then shipped by boat to Atlantic City and Absecon.

Some oysters are said to be shipped from Leeds Point and other towns near the southern shore, but this could not be verified, because of the lack of time.

WATER SAMPLES FROM GREAT BAY, BACTERIOLOGICAL RESULTS.

TABLE 43.

Total number of samples	15	
Number showing presumptive test for B. coli in 1.0 cc.	0	
" " " " " " " absent	15	100%

TUCKERTON CREEK: As previously stated, most of the oysters obtained from the bays and thoroughfares in this section are shipped from Tuckerton. Before shipping, these oysters are nearly always laid out on floats in Tuckerton Creek for a period varying from a few hours to several weeks.

Tuckerton Creek is a small stream which has its source in a cedar swamp. The water flows into a small pond located in Tuckerton and is used as a town water supply. Below the dam, the water is a tidal stream for about two and one-half miles and flows through pasture and swamp lands. There are a few houses located on its banks, the yards of which extend to the creek, but there are no privies from which pollution may enter the stream. A few small pleasure boats are harbored in the stream besides the boats used by the oystermen.

Samples of water and floated oysters have been collected and analyzed. A survey of the table will show that 95% of the samples collected gave a positive test for B. coli in one cubic centimeter, and 25% gave a positive test in one-tenth of a cubic centimeter. It seems likely that these coli figures are caused by cattle which make use of the pasture lands near the stream.

WATER SAMPLES FROM TUCKERTON CREEK,

BACTERIOLOGICAL RESULTS.

TABLE 44.

Total number of samples	39	
Number showing presumptive test for B. coli in 1.0 cc.	37	95%
" " " " " " " " 0.1 "	10	25%
" " " " " " " " 0.01 "	1	2%
" " " " " " " absent	2	5%

Big Creek: There is a natural growth of seed oysters in this creek. The stream is five or six miles long and is located about four miles south of Tuckerton. Its source is a cedar swamp and it empties into Great Bay, after traversing a crooked course through a salt marsh. There are no buildings located upon its banks excepting a few shacks used by oystermen. Two privies were found as a result of inspection of this stream, one of which directly polluted the creek. Both of these had been removed, as a result of orders from the Board.

During the year, complaints were made, by certain oystermen, that a wireless station was being erected near Big Creek and was allowing sewage from its plant to enter the stream. An inspection was, therefore, made and it was learned that it was the intention of the company to discharge sewage and waste liquids into a dug ditch and, subsequently, into Big Creek. As soon as it was pointed out to the company that sewage and waste liquids, so discharged, might be the cause of polluting the oysters grown in Big Creek, the company readily agreed to construct a cesspool, which was done and is now in operation.

WATER SAMPLES FROM BIG CREEK,

BACTERIOLOGICAL RESULTS.

TABLE 45.

Total number of samples	**11**	
Number showing presumptive test for B. coli in 1.0 cc...	**1**	**9%**
" " " " " " " absent	**10**	**91%**

Mullica River: This is a large stream, being nearly three-quarters of a mile wide where it enters Great Bay and about one-third of a mile wide at a point six miles from its mouth. Its course is mostly through uninhabited lowland. In its mouth are found large beds of seed oysters, which are gathered by the oystermen during the spring and planted in Great Bay.

WATER SAMPLES FROM MULLICA RIVER, BACTERIOLOGICAL RESULTS.

TABLE 46.

Total number of samples	**28**	
Number showing presumptive test for B. coli in 1.0 cc.	**4**	**14%**
" " " " " " " absent	**24**	**85%**

Bass River: This is a large tributary of the Mullica River. Oysters were floated by two firms in this stream in the early part of last year. The largest of the firms has since moved to Tuckerton. The remaining firm ships very few oysters. Other floats are located a short distance below the bridge at New Gretna. The last inspection made failed to disclose the presence of any direct source of pollution.

WATER SAMPLES FROM BASS RIVER, BACTERIOLOGICAL RESULTS.

TABLE 47.

Total number of samples	**16**	
Number showing presumptive test for B. coli in 1.0 cc.	**15**	**93%**
" " " " " " " " 0.1 "	**3**	**18%**
" " " " " " " " 0.01 "	**1**	**6%**
" " " " " " " absent	**1**	**6%**

Barnegat Bay: This is a large body of water reaching from the Town of Bay Head to Manahawken Bay. There are several small towns along its eastern and western shores, some of which are unimportant summer resorts. During the summer months, there is a considerable amount of boating and fishing.

In former years, oysters were planted in various parts of the Bay and shipped from several towns along its western shores. During the past year, the towns of Bay Head, Point Pleasant, Toms River, Lanoka, Forked River and Barnegat were visited, as result of which it was learned that practically no oysters have been obtained from the bay during the past few years. A few oysters still remain on the old beds, but these no longer grow well and are, therefore, not marketed. In former years, it was the practice to float such oysters as were collected in various small streams entering into the bay.

..WEST CREEK: Most of the oysters which are shipped from this locality are obtained from Little Egg Harbor and are floated in West Creek. This stream has its source in a cedar swamp, is several miles long, and flows through a comparatively uninhabited section.

WATER SAMPLES FROM WEST CREEK,

BACTERIOLOGICAL RESULTS.

TABLE 48.

Total number of samples	4	
Number showing presumptive test for B. coli in 1.0 cc.	4	100%
" " " " " " " " 0.1 "	0	
" " " " " " " absent	0	

ATLANTIC CITY: This section includes all of the channels, thoroughfares and bays from Great Bay to Longport Inlet. Sewage, from Atlantic City, Ventnor, Margate City, Longport, Ocean City and Pleasantville, discharges into the waters of the section as defined above. Most of the sewage, however, enters Beach Thoroughfare and Inside Thoroughfare in the vicinity of Atlantic City. A description of how the sewage ebbs and flows with the tide and the probability of it extending into Lake Bay and other oyster grounds can be found in the report of the section of Engineering.

Owing to the large amount of sewage emptying into the thoroughfares back of Atlantic City, it became necessary to define certain areas from which shell fish should not be taken.

The Board, thereupon, acting under authority contained in Section 2 of Chapter 24 of the Laws of 1912, condemned Beach Thoroughfare from its mouth at Absecon Inlet to the Boulevard Bridge on Beach Thoroughfare and to the Boulevard Bridge on Great Thoroughfare; also all of the Inside Thoroughfare; all of the Ventnor Canal; all of Clam Creek and its tributaries, and all of Clam Thoroughfare, and prohibited the taking of oysters, clams, or other shellfish, from these waters, and also prohibited the sale, distribution, offering for sale, or having in possession with intent to distribute or sell, any such oysters, clams, or other shellfish.

LAKES BAY: Oysters are obtained in various parts of Lakes Bay and are also gathered from Dock Thoroughfare which enters the bay at the south. The practice is to place all oysters which are collected into certain fresh water ditches in the vicinity of Pleasantville. The floating process, as practiced in this locality, consists in placing the oysters on platforms which are stationary and in the bottom of the stream, where the oysters are usually left for a few hours during the last of the ebb and the first of the flood tide. The streams in which these platforms are located are from one-half a mile to a mile in length and are fed by springs. At high water they may be five or six feet deep, while at low water they are less than two feet deep. At low water the streams are quite fresh. There are ten of these ditches, six of which are used by the oystermen. They run nearly parallel with each other through a marsh land and some of them have been found to be connected to each other by underground streams. Along these ditches are located a considerable number of houses which are built on piling and used as summer cottages. Within short distances of these streams are a considerable number of privy vaults and although most of these appear to have tightly constructed brick vaults, it is not improbable that the streams may receive some pollution from this source.

ABSECON BAY: This bay is located just east of the Town of Absecon. Formerly, oysters were obtained from here, but of late years only a few bushels are to be found on the beds.

WATER SAMPLES FROM ABSECON BAY,

BACTERIOLOGICAL RESULTS.

TABLE 49.

Total number of samples		33	
Number showing presumptive test for B. coli in	1.0 cc.	30	90%
" " " " " " " "	0.1 "	22	66%
" " " " " " " "	0.01 "	8	24%
" " " " " " "	absent	2	6%

ABSECON AND ABSECON CREEK: The business of Absecon is carried on by six firms. It is mostly a summer business, but some oysters are shipped during the remaining months of the year. Most of these oysters are shipped to Atlantic City. The salt oysters are obtained from Eagle Bay, Big Creek and the thoroughfares near Brigantine. A few are also gathered from Absecon and Reed's Bays. These oysters are floated in Absecon Creek, which is a cedar swamp stream, the upper end of which is a part of the Atlantic City water supply. That part in which the oyster floats are located is a tidal stream. The inspection of this stream has not yet been completed.

REED'S BAY: While oysters were formerly grown here in considerable quantities, the number now gathered is negligible. The few which are caught are shipped from Absecon.

EAGLE BAY: This is a small bay, located about two miles from Absecon Inlet and about four miles north of Atlantic City. The only apparent source of pollution is from the Atlantic City sewer, which empties into Beach Thoroughfare about five miles away. Large oyster beds are located in the bay. The oysters are shipped from Absecon.

NAVESINK OR NORTH SHREWSBURY RIVER: Years ago, the oyster business in the Navesink flourished, and Shrewsbury River oysters were much sought after. Although a considerable number of oysters are still taken from the river and find a ready market, the business appears to be rapidly diminishing.

The river seems to be particularly well adapted to the growth of oysters, and they grow readily in most any part of it. At present, however, oysters are taken at various points between the Merchants Steamboat wharf at Red Bank and the Oceanic bridge but the majority are gathered between Guyon Point and the Oceanic bridge and, more particularly, at the mouth of McClees' Creek and off Fairhaven (see map of Shrewsbury River). The principal shipping point is Fairhaven.

Our investigations, during the year, extended from the old railroad bridge at Red Bank to Lower Rocky Point, a distance of about five and four-fifths miles. For convenience, as may be seen from the accompanying map, the river was divided into sections.

Section one is that part of the river located between the old railroad bridge at Red Bank and the present Central Railroad bridge. The sewage effluent from the Red Bank disposal plant discharges into the river within the limits of this section. Up until June 18th, when the method of sewage treatment was changed as a result of orders from the State Board of Health and the use of calcium hypochlorite commenced, very imperfectly treated sewage was being emptied into the river. A description of the operation of the Red Bank sewage disposal plant can be found in the report relating to water and sewerage inspection.

No oysters are taken from this section.

SECTION I—WATER SAMPLES.

BACTERIOLOGICAL RESULTS.

TABLE 50.

Total number of samples	143	
Number showing presumptive test for B. coli in 1.0 cc.	135	94%
" " " " " " " " 0.1 "	103	72%
" " " " " " " " 0.01 "	36	25%
" " " " " " " " 0.001"	3	2%
" " " " " " " absent	8	6%

Section two comprises that part of the river extending from the present Central Railroad bridge at Red Bank to the Merchants Steamboat warf, a distance of 880 yards. Within this section oysters are obtainable and it is claimed some few are, from time to time, tonged by local push-cart venders.

SECTION 2—WATER SAMPLES.

BACTERIOLOGICAL RESULTS.

TABLE 51.

Total number of samples	35	
Number showing presumptive test for B. coli in 1.0 cc.	27	78%
" " " " " " " " 0.1 "	20	57%
" " " " " " " " 0.01 "	9	26%
" " " " " " " absent	8	23%

Section three is that part of the river from the Merchants Steamboat wharf to Guyon Point, a total distance of 1550 yards. In this section, the first oyster beds from which oysters are gathered and shipped occur. It also includes a large pleasure boat area.

SECTION 3—WATER SAMPLES.

BACTERIOLOGICAL RESULTS.

TABLE 52.

Total number of samples		102	
Number showing presumptive test for B. coli in	1.0 cc.	86	84%
” ” ” ” ” ” ” ”	0.1 ”	58	57%
” ” ” ” ” ” ” ”	0.01 ”	22	47%
” ” ” ” ” ” ”	absent	16	15%

From Guyon Point to Brown's Dock, a distance of 1880 yards and classified as section four, most of the oysters which are shipped to market are grown. This section includes McClees' Creek and practically all of Fairhaven. McClees' Creek is a tributary to the Navesink. It is about 650 yards long and 220 yards wide at its mouth. It, formerly, was the custom to float oysters in slatted oyster cars in this creek, but this practice has now been discontinued. Several of the largest oyster beds are located at the mouth of this creek.

SECTION 4—WATER SAMPLES.

BACTERIOLOGICAL RESULTS.

TABLE 53.

Total number of samples		58	
Number showing presumptive test for B. coli in	1.0 cc.	22	38%
” ” ” ” ” ” ” ”	0.1 ”	2	4%
” ” ” ” ” ” ” ”	0.01 ”	0	
” ” ” ” ” ” ”	absent	36	62%

Section five reaches from Brown's Dock to the bridge at Oceanic, a distance of about 2000 yards. Comparatively few oysters are taken from the waters included in this section.

SECTION 5—WATER SAMPLES.

BACTERIOLOGICAL RESULTS.

TABLE 54.

Total number of samples		38	
Number showing presumptive test for B. coli in	1.0 cc.	18	48%
" " " " " " " "	0.1 "	4	9%
" " " " " " " "	0.01 "	1	3%
" " " " " " "	absent	20	52%.

Section six extends from the Oceanic bridge for about 3300 yards to Lower Rocky Point. Many clams are gathered from this section, but no oysters are obtained.

SECTION 6—WATER SAMPLES.

BACTERIOLOGICAL RESULTS.

TABLE 55.

Total number of samples		23	
Number showing presumptive test for B. coli in	1.0 cc.	12	52%
" " " " " " " "	0.1 "	1	5%
" " " " " " " "	0.01 "	0	
" " " " " " "	absent	21	.91%

The total number of oyster samples collected in the Navesink River was 46. The results of the examinations of these oysters were as follows:

TABLE 56.

Total number of samples	46	
Number having score of 23 and under	26	43%
" " " " over 23	20	43%
" " " " " 50	4	8%

South Shrewsbury River: Inspections were made, during the year, of the South Shrewsbury River, as a result of which, it was ascertained that comparatively little oystering is now conducted in this branch of the river. Most of the oysters gathered in this section, are taken from Blackberry Cove and shipped from Branchport. A limited quantity of oysters are taken from Little Silver Creek and there are a few isolated beds in Parker's Creek. In the Pleasure Bay branch are two small beds, from which oysters are taken and shipped to both Asbury Park and Long Branch. It is obvious that the total output is small.

The accompanying map shows the Shrewsbury River and its tributaries and a portion of Sandy Hook Bay, and on this map are shown the oyster beds in both branches of the Shrewsbury; the areas from which clams are taken; the results of the examination of samples of water; the scores on samples of oysters collected during the present season, and the location of pollutions of various kinds which were discovered during a sanitary inspection of the river, made in July and August. It will be noted that this river is receiving considerable polluting matter.

The sewage disposal plant at Red Bank is now operating in a fairly satisfactory manner. There are several private disposal plants along the banks of the Navesink branch, most of which treat the sewage from single houses, and there are a number of pollutions of other kinds, the locations of which are shown on the map, which may seriously affect the purity of the river and the safety of the shellfish grown in it. The country surrounding the Navesink is quite thickly settled, and is rapidly growing. The river is filled, during the summer months, with pleasure craft of various descriptions, and a line of steam boats runs regularly from Red Bank to New York.

Most of the polluting matter which gets into the river from the various disposal plants, cesspools and other sources of pollution noted on map, can be kept out by suitable legal procedures on the part of the State Board of Health, and notices have been sent to all the persons who were found to be polluting the river to abate these pollutions in accordance with the requirements of law. It is obvious, however, that pollution which must enter the river from boats cannot be controlled except by a rigid system of policing, which would be altogether too laborious and too costly to be maintained by the State, nor would the extent of the industry in this river warrant such an expenditure.

An examination of the analytical figures, however, shows judged by the B. coli content of the water, that the pollution is not as great as would be expected if judgment is to be based upon the sanitary survey. The results of both inspections and analyses, however, show that that portion of the river, included in Sections 1, 2 and 3 on the map and extending from the mouth of Swimming River to a line across the Navesink at Guyon's Point, is too seriously polluted to make it safe to take oysters from it which are to be used for human consumption. As a matter of fact, very few oysters are taken from this section. There are a few small grounds in the vicinity of the Railroad Bridge, which are used as seed grounds, and there are a few areas in the vicinity of Jone's Point, from which marketable oysters are taken.

Below Guyon's Point, judging from the results of analyses, the water is much purer, and between Guyon's Point and Brown's Dock, which is the area included in Section 4 on the map, most of the oyster grounds are located. While it is possible that dangerous polluting matter may reach oysters on beds located in this section, yet the analytical results on samples, taken at a period in the year when the highest bacterial content would be found, indicate that the oysters grown there are not exposed to much pollution, and it hardly seems feasible, until more definite evidence is secured against these oysters, to prohibit their sale.

It is obvious, however, that in spite of any efforts which can be made by the State Board of Health to prevent or minimize the pollution of the Navesink, the waters of this river will become more dangerously polluted as time goes on. The country surrounding this body of water is now fairly thickly populated, and this population is growing very rapidly. By reason of its location and natural advantages, the country around the Navesink is extensively used as a summer resort, and there can be no question that in the next ten or twenty years the population in this section, both summer and winter, will increase very much. It is not possible, in a thickly populated area, no matter what precautions are taken, to prevent dangerous pollution of a stream, and it, therefore, seems quite likely that at no very distant date, the oyster industry in this river will have to be abandoned entirely.

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What has been said about the Navesink applies to a lesser extent, to the other branch of the Shrewsbury. The population on this branch is not so great, but the oyster industry has dwindled to almost nothing at the present time, and there is no reason to suppose that it will ever be revived. The only oyster grounds of any importance on this branch of the river are located in the mouth of the Blackberry Creek, and these grounds appear to be distant from any important sources of pollution.

CHEESEQUAKE CREEK: This stream is a tidal estuary of Raritan Bay, about 2.9 miles long and 105 yards wide at its mouth. Most of its course is through uninhabited marsh land. During the oyster season, large quantities of oysters are floated in this creek. Many of these are brought from Princes Bay and Great Kills, where they are permitted to drink for one or more tides, depending on the season. After floating, they are shipped to the New York market. Ellsworth and Company, from Keyport, also float a considerable number of oysters in this creek each year.

TABLE 58.

WATER SAMPLES FROM CHEESEQUAKE CREEK,

BACTERIOLOGICAL RESULTS.

Total number of samples		**24**	
Number showing presumptive test for B. coli in	**1.0 cc.**	**8**	**33%**
" " " " " " " "	**0.1 "**	**2**	**8%**
" " " " " " " "	**0.01 "**	**0**	
" " " " " " "	**absent**	**16**	**66%**

RARITAN BAY: There is a large oyster business conducted at Keyport during the summer months. The natural oyster beds of Raritan Bay are, however, no longer used as a source of supply, the practice being to secure oysters from Hampton Bar, Virginia, and to plant them in Raritan Bay. The favorite spot is about one and one-half miles northeast from Keyport, where they are permitted to remain from about the first of April until the middle of the summer, when they are taken up, floated in Lupatcong Creek, and shipped to various New Jersey summer resorts.

Lupatcong Creek is a tributary to Raritan Bay and is about three miles long. The stream appears to have a hard sand bottom for a distance of about one-half a mile from its mouth. At low tide, the water is exceedingly shallow and the oysters are laid out on the bottom, instead of on the customary floats.

Extending along its banks for some little distance. are numerous oyster houses. The large shucking house of J. & J. W. Ellsworth is also located here.

There is no doubt, that in the past, this creek received a considerable amount of pollution from various sources and, while it is now stated that sewage no longer enters the creek, further investigation of this stream is needed. Although our inspections, which were made here last summer, were necessarily limited in number, the results obtained would seem to indicate that Lupatcong Creek is not a desirable place for the floating of oysters.

TABLE 59.—OYSTERS FLOATED IN LUPATCONG CREEK, BACTERIOLOGICAL RESULTS.

Sample No.	Date Collected.	Time Floated.	No. Tubes Showing Gas, Lactose Bile.			Score.
			1c.c.	0.1c.c.	.01c.c.	
F-249.	July 16-13	6 hours.	5	3	1	41
F-250.	July 16-13	6 hours.	5	5	1	140
F-254.	July 16-13	6 hours.	5	5	0	50
F-255.	July 16-13	6 hours.	5	2	1	32
F-267.	July 22-13	6 hours.	5	2	1	32
F-268.	July. 22-13	6 hours.	5	4	2	140
F-269.	July 22-13	6 hours.	5	4	1	50
F-270.	July 22-13	6 hours.	5	3	3	140

TABLE 60.

WATER SAMPLES FROM LUPATCONG CREEK,

SUMMARY OF BACTERIOLOGICAL RESULTS.

Total number of samples	24	
Number showing presumptive test for B. coli in 1.0 cc.	17	70%
" " " " " " " " 0.1 "	9	39%
" " " " " " " " 0.01 "	1	4%
" " " " " " " absent	7	29%

THE SOFT CLAM INDUSTRY AT HIGHLANDS.

In the Report of the State Board of Health for 1911 reference was made to the manner in which clams are packed and prepared for market at Highlands. During the past year a more thorough study of the existing conditions was made and it has been thought advisable to describe the industry in some detail in this report.

Practically all the clams which are shipped from Highlands, are of the soft or long neck variety. In former years a considerable number of hard clams were obtained in this vicinity, but the number is not great at the present time.

The soft clams are dug from the mud flats, extending from Hilton Park to Highlands, and in the vicinity of Sandy Hook. They are also dug along the shores of the Shrewsbury River from its mouth to Oceanic Bridge. The number dug at Oceanic Bridge is limited in quantity because of the poor quality of the clams. A few are bought from dealers in Belford, Port Monmouth and Keensburg, but the greater number are gathered near Sandy Hook.

It is difficult to estimate accurately the number of clams sold at and around Highlands. Approximately seven car loads are shipped each week. This includes both the steamers and the shucked clams, and will probably average about 150,000 clams per week. The business is carried on both summer and winter and it seems probable that the amount does not vary greatly during the year.

The clams are usually shipped by freight, most of them going to Fulton Market in New York City. Some go to Newark, Hoboken and other parts of New Jersey, and during the summer months many are shipped to Asbury Park and other nearby resorts.

A considerable number of clams which go to these resorts have in former years been dug in Shark River, by Highland clammers.

There is no other industry in Highlands during the winter so the livelihood of several hundred people is almost entirely dependent upon the clam. During the summer there is some fishing.

There are nine principal shippers. A few others ship directly to market, but their combined output is comparatively small The nine shippers buy clams from men who follow the bay, while the smaller shippers supply themselves with clams. The clam grounds are not leased, and the men, therefore, dig wherever they please. At low tide they go to the mud flats and dig clams with shovels and hoes and throw them into baskets in their boats. Since there is usually more or less water over the beds at the time of digging, much of the mud is removed from the clams. However, during the cold weather a thin film of ice quickly freezes over the clams causing much of the mud to adhere to the shells and so they are dirtier in winter than in summer. In the summer when the clams are taken from the boats in which they are brought ashore, they are rinsed off in sea water, but in the winter this practice is impracticable because of the ice.

About two thirds of the clams leaving Highlands go to the markets as steamers, i. e. in the shell just as they are dug. The other third are shucked. When they are sold as steamers they are rinsed off in sea water and packed in second hand sugar barrels, boxes and crates. In the summer this is done on the shore, but in cold weather the packing is carried on in small shanties a little distance from the water, or in yards nearby where the workers are protected from wind. One of the shippers has a large wooden box in his shipping house in which he sometimes soaks the clams before packing them. He uses tap water from the public supply and sometimes sea water, his object being to fatten and clean the clams. Steamers are usually shipped on the day they are dug or the day after, but at times they are stored in the shanties or on the floats just off the Highland shore.

When clams are opened the operator holds the clam in one hand and with the other inserts the knife between the two shells sliding it along the inside of first one shell and then the other, so as to cut the muscles and thus free the clam from the shell. The neck is then slit from the body part to within half an inch of the end, thus permitting the removal of the skin. The clam is thrown into one tub and the shell and skin into another. The tubs are either wood or galvanized iron. The opener puts a quantity of water into the tub before starting work and then proceeds to fill it with clams. A good shucker can open from 4,000 to 6,000 per day. The clams are washed by lifting them out of the tub with the hands and putting them into a second container of fresh water. They are then picked out and strung on strings in bunches of twenty-five. The bunches are put either into a third tub of water or into a shallow wooden box, covered with water and allowed to soak for a period of time varying from an hour or two to eighteen or twenty hours. The variaton is due to the hour at which they are opened. For example, if the clams are opened in the morning and packed for market so as to leave on the 4.30 p. m. train, the soaking period is very short; whereas if they are opened in the afternoon and evening they soak until time to pack for the 4.30 p. m. train the following day.

There are four regular shucking houses at Highlands. These are small buildings in which clams are opened by women and children employed by the owners. About twenty per cent. of the clams shipped are opened in these houses, the remainder being opened in the homes of those who gather clams. The clams opened in houses are usually opened by the women and children in the kitchens, which are also the living rooms, although in the warm or pleasant weather they are frequently opened out of doors. After soaking they are carried through the streets to the shippers place of business in covered tubs.

During warm weather, the shippers pack the clams in barrels in contact with crushed ice. The barrels are mostly second hand ones, some of the packers having their barrels shipped back for use over again. Before shipping they are covered with burlap.

Most of the people who engage in the business live in small, badly constructed houses, many of which are overcrowded and dirty. The town has no system of sewerage, and open privy vaults are located in close proximity to many of the houses. Clam shells are thrown on the ground around the houses and flies swarm in great numbers in and around the piles of clamshells and privies.

Although there is a public water supply in Highlands, very few of the homes have running water in doors, the hydrants being usually located in the yards adjacent to the dwellings.

The Board realizing that the obvious defects in the methods of handling clams in this locality could best be remedied by a free discussion of them with the clammers, arranged for a conference. A set of tentative rules for the purpose of regulating the industry was prepared for discussion at this conference which was held at Highlands.

These rules were as follows:

RULES REGULATING THE PREPARATION OF SOFT CLAMS FOR MARKET.

1. All rooms and buildings in which clams are opened must have tight floors and smooth sidewalls, and an adequate supply of clean water. The floors, sidewalls, ceilings, furniture, receptacles and implements of every establishment or place, where clams intended for distribution or sale are opened, shall at no time be kept in an unclean or an unsanitary condition. During the fly season all doors and windows shall be provided with screens.

2. No person or persons shall be allowed to live or sleep in any room where clams intended for sale or distribution are opened or packed.

3. Waste materials must not be permitted to accumulate in the vicinity of places where clams are opened and must be removed daily.

4. No privy vault will be permitted within five hundred feet of any building wherein clams are opened, unless properly constructed and screened.

5. Small children and domestic animals must be kept out of the room wherein clams are opened.

6. The soaking of fresh clams in fresh or salt water is prohibited. Clams may be washed in clean water before shipping.

7. Clams must not be packed for shipment in contact with ice. All containers in which clams are packed for shipment must be clean and constructed of such materials and in such manner as will enable them to be readily cleansed.

8. All clams intended for distribution or sale shall, during the process of preparation or packing, be securely protected from flies, dust and dirt, and by the use of all reasonable means from other injurious contamination.

9. Clams must be shipped the same day they are opened, unless stored in an adequate cooling room or thoroughly iced.

10. Shuckers must be cleanly in their habits and must provide themselves with suitable garments which can be kept clean.

11. No shuckers with infectious wounds in the hands or arms shall be permitted to open clams nor to handle the same. Clean cuts which are not infected shall be covered with rubber cots securely fastened.

12. An abstract of the rules and regulations of the State Board of Health shall be posted in a conspicuous place in every room where clams are opened, packed, handled or stored.

Each of the above mentioned rules was considered in detail and declared to be satisfactory by all clammers with the exception of rule seven, which they said could not be complied with. It was, therefore, decided to withold the enforcement of this rule until a sufficient number of experiments could be made to determine the necessity for it.

These rules are an attempt to regulate the sanitary conditions under which soft clams are packed and handled, and were prepared in the interest of public decency and for the purpose of securing a clean and wholesome product.

WATER AND SEWERAGE INSPECTION. Francis E. Daniels, Director of Water and Sewerage Inspection.

Following is a summary of the work, other than the collection of water samples, done during the year ending October 31, 1913:

TABLE 61.

Water supply inspections	369
Bottled water supply inspection	38
Ice supplies and manufacturing plants inspected	4
Watershed inspections	30
Sewerage systems inspected	526
Number of stream pollutions reported	1012
Number of stream pollutions reinspected	2131
Number of stream pollutions abated	948
Number of notices to cease pollution issued	575
Number of cases referred to the Attorney General	279

ALLENTOWN: For description of this plant see 1911 report, page 355.

The output of this installation is still very uncertain, due to lack of proper facilities for treating the raw water, and since last year little or nothing has been done. After facilities for proper coagulation and more convenient means of handling the chemicals have been provided, the attendant can be taught to manage the plant in a proper manner.

Inspections and tests of the water were made November 16, December 17, 1912, January 22, March 27, April 17, May 22, June 3, August 14, October 7, 1913. At nearly every one of these visits the results have shown that the water has been improperly treated, and that the bacterial reduction has been unsatisfactory. The authorities have been repeatedly urged to make the necessary improvements. The water receives considerable surface pollution and is at times infested with microörganisms.

TABLE 62.—ALLENTOWN

RESULTS OF CHEMICAL ANALYSIS

WATER ANALYSES.	Nov. 16, 1912.		Dec. 17, 1912.		Jan. 22, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0	0	0	0	0
Turbidity	......	......	......	......	5	0
Free Ammonia	.038	.028	.038	.046	.042	.380
Alb. Ammonia	.074	.078	.066	.032	.074	.042
Nitrites	.004	.000	.003	.002	.001	.001
Nitrites	.28	.28	2.0	2.0	2.0	2.0
Chlorine	6.0	5.5	5.5	5.5	6.5	7.0
Alkalinity	2.0	2.0	6.0	2.0	3.0	4.0
Iron	0	0	0	0.2	......	......
Bacteria per c.c. 20° c.	......	......	420	275	2,000	500
Bacteria per c.c. 37° c.	......	......	16	1	60	5
Red Colonies per c.c.	......	......	0	0	0	0
B. Coli (presump.) in 5 c.c.	50	5	......	0	5	0

ATLANTIC CITY: The watershed furnishing the water to supplement that obtained from driven wells is very sparsely settled, although it is traversed by public highways and two railroads. The railroads cross the streams at several points, and should passengers, using the toilets on the cars, pollute the streams there is some danger that supply might become contaminated. The railroad companies were requested to lock the toilets on trains while passing over the watershed, but they did not think this was necessary, and requested that a joint inspection be made. Numerous endeavors have been made to arrange a tour of inspection, but up to the present time it has not been accomplished.

BERNARDSVILLE: Bernard's Water Company.—In February 1913, the Bernard's Water Company decided to install an apparatus at Osborne's Pond to treat the water which furnishes the public supply with liquid chlorine. After considerable correspondence the plans were approved as an experimental installation.

On July 2, notice of the installation of this plant was received, and on July 10, a representative of this Division visited the plant to make tests. Upon arriving at the plant it was found that owing to a leak the apparatus was out of commission. It was then disconnected and taken to New York for a thorough overhauling, and up to the present time it has not yet been replaced.

FILTER PLANT.

EXPRESSED IN PARTS PER MILLION

Mar. 27, 1913		Apr. 17,1913		May 22, 1913		June 3, 1913.		Aug. 14, 1913.		Oct. 7, 1913.	
Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw	Filt'd.	Raw.	Filt'd.
25	......	25	0	25	0	0	0	40	30	40	40
25	......	40	5	10	0	10	0	20	5	20	15
......	......	.088	.036	.034	.038	.016	.024	.096	.094	.036	.032
......	......	.148	.056	.160	.112	.104	.026	.204	.118	.138	.088
......	......	.002	.001	.004	.000	.004	0	.008	.004	.004	.001
......	......	.72	2.0	1.6	1.6	1.6	2.0	.60	.72	.80	1.0
5.0	......	5.5	6.5	5.5	6.0	6.0	6.0	6.5	6.5	6.5	6.5
6.0	......	6.0	4.0	6.0	5.0	6.0	3.0	11.0	11.0	8.0	12.0
......	......	0.5	0.1	0.1	0.1	0.2	0.1	1.0	0.8	0.5	0.2
8,400	15	20,000	2,400	70	3	190	3	125	60	600	175
800	0	1,800	70	110	1	30	1	64	57	60	16
40	0	31	0	0	0	0	0	1	0	10	2
5	0	50	2	2	0	0	0	50	4	50	3

Bloomsbury: An inspection of the watershed of the supply of the Bloomsbury Water Company was made July 17, 1913. There are two sources of supply, and upon neither shed was any serious source of pollution found. There was noted, however, considerable animal excrement along the brooks, showing that the lands were used largely for pasturing. This alone would account for the analytical results of some of the samples.

Boonton: The public water supply for Boonton is obtained largely from a surface stream about five miles north of the town. This stream is impounded in a reservoir having a surface area of about 120 acres and a storage capacity of about 161 million gallons.

The area of the watershed is about three square miles. The reservoir has natural earth sides and bottom, and boating and fishing are allowed upon the water. There are six houses on the watershed, some of which are only inhabited during the summer months. The Water Company keeps a man at the reservoir at all times and one of his duties is to locate any source of pollution.

From the reservoir the water is carried through a tunnel into a pipe line which leads to Boonton. In constructing this tunnel a subterranean stream of water was discovered, and this water makes up part of the supply, furnishing about 125,000 gallons per day. The average daily consumption is about 350,000 gallons.

BOUND BROOK: This supply would probably be beyond criticism were it not for the objectionable qualities of the surface portion. To remedy this the Company decided to install filters for the surface water. These are now practically completed.

BRANCHVILLE: On May 2, 1913, an inspection was made of the water supply for the Borough of Branchville.

The supply is obtained from a small spring-fed brook, about 6 miles north and west of the town. The water is impounded in a reservoir of about 1,650,000 gallons capacity, and from this reservoir it is carried through a pipe line to the town. It would appear that this supply is a satisfactory one for potable purposes, being located in a very sparsely settled country, and there being only one habitation on the watershed. It is impossible to learn the average daily consumption.

BRIDGEPORT: On January 10, 1913, an inspection of the water supply for the town of Bridgeport was made. It was learned that water is derived from four driven wells, 4" in diameter, and 40 feet deep. The water is pumped directly into an elevated metal tank, holding 50,000 gallons, by an Otto triplex pump, having a capacity of 150 gallons per minute. The daily consumption is estimated at about 3,500 gallons for a population of about 650.

BRIDGETON: This plant consists of a coagulation basin, 6 gravity filters and a pumping station. The water intake is located about 8,500 feet up stream, in fact beyond the large pond, or lake upon which there is considerable boating and canoeing in summer.

The plant was not put into full operation until August, 1913, and there has been more or less experimentation carried on by the Superintendent, to learn as much about the local conditions and the best methods of operation as possible. Notwithstanding the experimentation the plant has been so managed that a satisfactory water has been delivered to the city.

As an extra precaution, hypochlorite has been added to the filtered water. At the last visit for the fiscal year, October 15th, the plant was found temporarily shut down for repairs which only required a few days.

BURLINGTON: The construction of the Burlington water purification plant has been described in former reports. This plant having been run under the careful supervision and almost constant watchfulness of a member of the Board of Water Commissioners, who is also a member of the Local Board of Health, has uniformly given very satisfactory results, notwithstanding the fact that the load upon the filters has been trying at times.

The condition of the raw water at Burlington varies greatly from time to time. It is sometimes very clear, while at others the mud and coal dust from the upper Delaware gives it an almost black color; at other times the turbidity caused by surface wash from some of the streams in Pennsylvania, gives the water a very yellow appearance, and it is always highly polluted.

On November 14, 1912, a representative of this Division placed seals on the valves, admitting raw water directly to the filtered water pumps.

On April 1, a telephone message from the Superintendent of the plant was received, stating that it was necessary to pump raw water into the mains. A representative of this Department immediately went to Burlington and found that raw water had been turned into the mains for some time before any provision had been taken to insure the safety of the water by treatment, and before the consumers were notified that raw water was being supplied. An emergency hypochlorite plant was erected and the supply of hypochlorite was delivered directly into the pipe line.

The trouble was found to have been caused by a piece of wood which had lodged in the foot valve on the end of the suction line, and prevented the foot valve from closing, thereby allowing the pumps to lose water. In an attempt to raise the vertical section of the suction line, in order to get at the foot valve, the chain hoist broke, allowing the pipe to fall and break off a portion of the flange on the pipe extending through the bulkhead. This immediately cut off the supply of water from the river until the town fire engine could be procured to pump water from the river up into the sedimentation basin feeding the filters. When this was done the filters were operated normally, and as soon as the suction line was repaired the plant was again put into normal operation.

The pumping of raw water directly into the mains, for the use of consumers without any notification, or without taking proper precautions to insure the safety of the water furnished, was well nigh a criminal act. Chapter 317 of the Laws of 1912, provides a penalty for such offences as this, in order to discourage or prevent the turning in of raw water without warning the health authorities so that proper precautions can be taken to protect the lives and health of the consumers.

So far as is known, no casualties are traceable to the above event; but everyone must admit that a great risk was taken.

This plant receives quarterly inspections and tests, and throughout the year the usual performance of the filters has been satisfactory. (See table on page 389).

BUTLER: In response to a complaint a representative of this Division visited Butler on July 29, 1913, for the purpose of investigating the sanitary condition of the public water supply. It was found that the upper reservoir was entirely dry, save for a small trickling stream flowing through the bed. A great deal of the vegetation and silt had dried, uncovering the bottom of the reservoir which consisted mainly of large boulders. At the lower reservoir the water was very low, and there was serious apprehension on the part of the towns-people that a water famine might ensue.

TABLE 63.—BURLINGTON FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 15, 1912.		Dec. 11, 1912.		July 22, 1913.		Sept. 22, 1913.		Oct. 29, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0	......	......	0	0	30	0	40	0
Turbidity	25	0	20	......	10	5	70	0	20	0
Free Ammonia	.046	.024	.084	.054	.054	.044	.094	.036	.034	.020
Alb. Ammonia	.076	.050	.094	.036	.138	.114	.214	.116	.106	.054
Nitrites	.002	.000	.001	.000	.010	.002	.002	.001	.003	.000
Nitrates	.20	.12	......	......	.16	.16	.08	.08	.12	.20
Chlorine	2.5	3.0	......	......	6.5	6.5	5.0	5.5	3.0	3.0
Alkalinity	14.0	11.0	......	......	50.0	50	32.0	44.0	23.0	15.0
Iron	0.5	0	......	......	0.6	......	......	......	0.4	0
Bacteria per c.c. 20° c.	......	......	5,500	48	1,100	30	22,000	190	3,100	90
Bacteria per c.c. 37° c.	......	......	1,200	18	350	25	4,000	115	240	9
Red Colonies per c.c.	......	......	10	0	20	0	570	11	40	0
B. Coli (presump.) in 5 c.c.	50	0	50	0	500	0	500	5	500	0

Several samples of water were taken from the stream and standing pools in the upper reservoir, and also a sample of water from the lower, or intake reservoir. These samples were taken to the laboratory of the Pequanoc Rubber Company and microscopical examinations of them were made. It was found that the water in the lower, or intake reservoir was teeming with Anabaena. The water from the upper reservoir showed various organisms in small numbers. The tap water at the laboratory was also examined and it was found to contain quite a number of microscopic organisms, chiefly Anuraea, Ceratium, Dinobryon, and broken threads of Anabaena. The tap water had a decided odor of Anabaena, and it is very probable that this organism was practically the sole cause for complaint concerning taste and odor. It was then decided to treat the water in and entering the reservoir with copper sulphate. The advisability of copper sulphate treatment had already been discussed earlier in the year by representatives of the Company, and of the State Board of Health, and everything was ready for the work, which had been put off on account of the lowness of the supply.

Next day, before beginning the treatment, the private estate of Mr. Kinney was visited and arrangements were made whereby a small flow of water was let down from a large lake upon this estate into the stream feeding the Company's reservoir. This stream before reaching the reservoir passes through a mill-pond. Upon examination, the water of this pond was also found to be heavily seeded with Anabaena. A canvas bag, containing a pound of copper sulphate, was placed in the stream entering the mill-pond. The reservoir was treated by dragging the pond with the chemical in a bag in the usual manner. A small bag of sulphate was also placed in the stream above the lower reservoir. Only an approximate estimate could be made of the volume of water treated, but upon that estimate an amount of copper sulphate was used to make one part of the chemical to five million parts of water.

Two days later another visit was made. The intake, or lower reservoir, had completely cleared up, and the microscope showed no organisms whatever beyond now and then a detached cell or two of Anabaena. Furthermore, the taste and odor of the tap water in the town had disappeared. The mill-pond, however, seemed as thick as ever with the organisms. A bottle of the water, when held to the light, was greenish and very turbid.

A little more time was allowed, and upon the receipt of a telegram from the Secretary of the Local Board of Health, stating that it had been necessary to break the seal on a by-pass valve, and pump in water from the Pequannock River at the Pequanoc Rubber Mill, another visit to Butler was made. At this time the mill-pond was again examined and the upper layers of water were found to be free from Anabaena, but the water discharged through the bottom of the dam still contained the organism in large numbers. Permission of the owner to treat the pond was obtained. This was done with a pound and a half of copper sulphate, by dragging in a bag in the usual manner. The bag was weighted to reach the lower strata of water. The matter was left in the hands of the Consulting Engineer, who promised to watch the supply carefully. A few days later a letter from him was received, which stated that the pond water had entirely cleared up. No reports have been received that there was any injury to fish life.

In regard to the use of raw water from the Pequannock River, it was claimed that on account of a small fire the Secretary of the Local Board of Health, who is also fire marshal, ordered it done, because of the scarcity of water in the reservoir. The Company denied that it was necessary to use the Pequannock water. There seemed to be quite a difference of opinion in the town on the matter. So far as could be learned, no warning whatever was given the citizens as to the change in quality or supply, and up to the present time no explanation has been received from the local board as to what precautions were taken by said board to protect the health of the citizens.

Subsequently an arrangement was made with the Newark Water Department to tap the pipe line of the Newark supply. This connection was made, but so far as known, it has not been necessary to draw water from that source.

CALIFON: The three supplies for this town of about 500 people were inspected during the year. Two supplies come from springs and are owned by the Califon Water Company. The third supply is also from springs and owned by Dr. Isidor Topkins. The supplies were found to be well protected from surface wash or other sources of pollution.

DOVER: The Dover water treatment plant is a temporary hypochlorite outfit, which treats the water which comes from shallow wells, forming part of the public supply. Tests on January 21, 1913, showed the dose to be about .24 parts per million available chlorine, and on April 8, 1913, it was about .1 parts per million available chlorine. In June, on account of shortage of water, the seal on the valve on the pipe leading to the pond was broken and pond water turned into the system. The dose of hypochlorite was increased. It later became necessary to obtain another source of supply. Consequently a pump was connected at the Singleton Silk Mill with Granny's Brook, a representative of the State Board being present. A pipe from this pump was laid to the nearest fire hydrant, and water from the brook was forced into the main line leading from the spring and pond supply to the town. The dose at the springs was further increased, which mingled with the water from Granny's Brook in the mains before distribution in the town. This was only a temporary measure, and when the next visit was made on July 21, the valve on the pipe leading to the pond was resealed.

On October 16, 1913, it was found that minor repairs were needed to the hypochlorite apparatus. These the Superintendent promised to do immediately.

ELIZABETH: The supply for the City of Elizabeth has not changed materially since the last report. That part of the supply taken from the Elizabeth River has been treated with hypochlorite throughout the year, but owing to poor facilities and lack of accurate measurement of water treated, and on account of the fluctuating condition of the raw water the results have been more or less erratic.

On December 16, 1913, an inspection of the plant was made and it was found that hypochlorite was being applied in the proportion of about .4 parts per million available chlorine, based on the estimated flow of water. The flow of water is estimated almost solely upon the experience of the engineer. It was then recommended that some form of measuring device be installed.

During December, 1912, and January, 1913, an inspection of the watershed was made and numerous sources of pollution were discovered, including surface wash, street pollution and sewer overflow. Steps have been taken to eliminate this pollution, as far as possible, but the stream is not fit for use as a public water supply, unless the water is filtered and its abandonment has been urged.

On February 11, 1913, an inspection of the treatment plant was made, and pitometer tests on the pipe lines were made. These results showed that the dose was .73 parts per million available chlorine. Further tests were made at this plant on February 18 and 19, and a pitometer traverse was made on the 24 inch pipe connecting the two reservoirs. The dose of hypochlorite was found to be .7 parts per million available chlorine.

Inasmuch as the water, after treatment, enters the Irvington Avenue reservoir, where it has a theoretical storage of about 8 days, it was deemed advisable to take samples of the water both before and after entering this reservoir. The analyses showed that although B. coli was occasionally present in 1.0 c. c. in the water entering the Irvington Avenue Reservoir, it was absent in 5 c. c. in the water leaving this reservoir.

In order that there might be no doubt as to the efficiency of the treatment, the dose was raised, on February 19, to 1.0 part per million available chlorine. This increased dose showed a gain in efficiency; whereas the reduction of bacteria at 20° with the dose of 0.7 parts per million available chlorine was 96%, with the increased dose it was 99.2%.

It was therefore recommended that a dose of 0.7 parts per million be used when the water is in a normal condition; but after storms, at which time the water is slightly turbid, the dose be increased to 1.0 part per million available chlorine.

Routine tests were again made on April 21, at which time samples of the treated water showed B. coli present in 1 c. c. quantities, the dose being about .5 parts per million available chlorine. Recommendations for improvement were again made. On July 23, routine tests were again made, and on August 28 tests showed very poor bacterial reduction, B. coli being indicated in .01 c. c. in the raw water and 10 in 10 c. c. in the treated water. Tests on October 9 showed about the same results, and although this matter has been brought to the attention of the Company no further improvements have been made. (See table on page 395).

FRENCHTOWN: The watershed furnishing the supply for the Frenchtown Water Company was reinspected in December, 1912. This inspection confirmed the data contained in former reports, the substance of which is about as follows:

The supply is taken from a swiftly moving stream having a great many branches which run through a hilly and cultivated section of country. The streams are subject to surface drainage from cultivated fields, pastures, farm habitations and the village of Everittstown; practically all of the drainage from which must reach this stream or its tributaries. It is stated that it takes but a few hours for water to flow from Everittstown to Frenchtown, a distance of about four miles.

The ditch or flume carrying water from the dam to the pump house intake is subject to the wash of one of the streets of

TABLE 64.—ELIZABETH TREATMENT PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Dec. 16, 1912		Feb. 11, 1913		Apr. 21, 1913		May 12, 1913		July 23, 1913		Aug. 28 1913		Oct. 9, 1913	
	Raw.	Tre'd.	Raw.	Tre'd.	Raw.	Tre'd.	Raw.	Tre'd.	Raw.	Tre'd.	Raw.	Tre'd.	Raw.	Tre'd.
Color	0	0	......	0	25	......	15	......	50	40	......	30	......	30
Turbidity	40	40	......	40	25	......	30	......	20	20	......	30	......	40
Free Ammonia	ppt.	ppt.	......	ppt.	.670	......	.088	......	.204	.196	......	.184	......	ppt.
Alb. Ammonia	.130	.130	......	.120	.166	......	.160	......	.290	.250	......	.234	......	.190
Nitrites	.048	.048	......	.010	.060	......	.001	......	.030	.025	......	.015	......	070
Nitrates	2.8	2.8	......	3.2	2.8	......	2.8	......	.72	.80	......	.36	......	72
Chlorine	18.5	20	......	18	13	......	18	......	28	28	......	19.5	......	32 5
Alkalinity	58	68	......	69	46	......	81	......	93	91	......	94	......	64
Iron	.5	......	......	.8	0.8	......	.4	......	0	.1	......	......	......	......
Bacteria per c.c. 20° c.	880	609	5,000	100	12,000	1,200	70	106	0	54	700	1,200	3,500	4.000
Bacteria per c.c. 37° c.	......	......	70	......	140	110	64	130	1,600	22	930	630	500	800
Red Colonies per c.c.	0	0	0	0	12	0	0	0	0	0	0	0	35	9
B. Coli (presump.) in 5 c.c.	5	5	0	4	50	5	0	2	5	3	500	5	500	3

Frenchtown, also from dwellings, pig pens, chicken houses, gardens and pastures.

The Company was urged to provide some method of rendering this supply safe at all times, but nothing has yet been done to carry out the instructions of the State Board.

GLOUCESTER: This plant is described on page 358 of the Report for 1911.

On November 8, 1912, the valve on the raw water suction line leading from the creek, was closed, and a seal was placed thereon so that should the valve again be opened the seal would have to be broken.

On April 4, 1913, an inspection of the watershed was made and as a result the following report was made in part, to the State Board:

"At the present time the supply is derived wholly from driven wells. The water from these wells contains a large amount of iron, which makes it necessary to filter the water before supplying it to the consumers.

"In order to remove iron effectively from a ground water, it is necessary first to precipitate the iron by oxidation or aeration. After allowing sufficient time for this precipitate to settle, the water is usually passed through rapid sand filters, either of the pressure or gravity type.

"At the Gloucester plant there are no means provided for aeration, the water being pumped to two sedimentation tanks, where it has a theoretical storage period of about an hour. During times of maximum consumption, this period is reduced at least 30%. The sedimentation basins consist of two tanks, each 22 feet in diameter and 12½ feet high. As at present arranged, the water is taken from the wells by low lift pumps and enters one of these tanks flush with the bottom. The outlet of this tank is placed about 3 feet below the surface, from which point a pipe leads to the bottom of the second tank. The outlet of this tank is 5 or 6 feet from the bottom and leads directly to the filters. The first tank contains no baffles, while the second contains three.

"There is at present no appreciable precipitation taking place in these tanks, the water flowing on the filters being perfectly clear. The sand in the filters, however, is very heavily coated with ferric hydrate.

"Upon testing the rate of filtration, it was found that the average rate on the four filters was 72,000,000 gallons per acre per day. The filters have a normal capacity of 2,000,000 gallons per 24 hours. At the above rate, they would only filter 1,150,000 gallons. The consumption at this time is about 1,600,000 gallons, and it is therefore necessary to allow a certain amount of water to overflow from the settling basins directly into the filtered water basin in order to keep up with the consumption. This procedure would never be necessary if the filters were operating in a proper manner, as they have sufficient capacity to care for more than the normal consumption.

"It is evident that the filters are not thoroughly washed, and one reason for this is that at times the necessary washing water cannot be spared. For several weeks during March the filters were not washed at all as during this time, the consumption was very high. In order to keep up with the demand a small steam pump was directly connected to one of the wells near the filtered water basin, and water was pumped from this well directly into the basin. Upon exposure to the air in this basin, iron precipitated out and for a considerable time turbid water was furnished to the consumers.

"By extending the influent pipe into the settling basin to a height of perhaps 8 or 10 feet above the top of the tank and discharging the water from this pipe in such a way that it would be thoroughly aerated before reaching the tank, it is probable that a good precipitation and sedimentation would be obtained. This aerating tower could be made in any one of several ways. The water could be discharged onto a series of screens, containing layers of coke, or it could be discharged through numerous holes in the sides of the pipe, or over top of the pipe and thoroughly broken up by baffles.

Any of these methods of aeration would probably be effective and would not be expensive to install.

"It would probably be wise also to raise the outlet from these basins to a point near the surface, in order to utilize the full capacity of the tanks.

"At the present time, the butterfly valves controlling the influent to the filters are all out of order. These should be fixed in order that the maximum head of water could be maintained upon the beds at all times, thus filtering the maximum amount which the beds will care for. At the present time the influent valves are governed by hand, and at times the filters are not receiving all the water they will take care of, while at other times they fill up and overflow onto the floor.

"The clear water basin should be covered, for the reason that a ground water, stored in a reservoir open to the sun, is especially favorable to the growth of microscopic organisms. The most vital reason for this cover, however, lies in the fact that the Blackwood Branch of the Reading Railroad passes about 75 feet north of the reservoir and there is a chance of serious contamination from soiled toilet paper, which can easily be blown into the water. In its present condition, the reservoir undoubtedly receives some slight pollution from dust. It is also possible for dogs or other animals to pollute the water at times. In case it is not deemed advisable at the present time to cover the basin, the wall should either be raised four or five feet, or a high tight board fence built entirely around the reservoir.

"The above are the main things which should be done to put this plant in satisfactory condition."

On May 27, 1913, it was noted that some attempt was being made towards improvements. Instead of a tight board fence, however, a 4 foot wire fence had been erected around the reservoir. This will keep out dogs and larger animals, but will not prevent boys from throwing things into the water, nor will it keep out dust or pollution from railroad trains.

Upon receipt of a telephone message that creek water must be used again, an engineer of this Division was sent to see that means were provided to treat the water with hypochlorite. The apparatus was adjusted and the hypochlorite started. Our engineer then broke the seal and opened the valve, admitting creek water. The Local Board of Health was notified, and the consumers were notified through the papers of the change of supply.

About this time pumping the wells by means of an air lift was being seriously considered by the Water Department, and trials with air compressors were made during the summer. The Department seems to be pleased with the success of the trials, and steps are being taken for a complete installation of air lift pumping machines. Whether this is going to be an efficient and economical procedure remains to be seen.

In August raw, polluted creek water was again pumped directly into the mains without treatment for over 24 hours, and the health authorities were not notified until two days after the valve was opened. An investigation was made and the facts reported to the State Board of Health.

At the last visit of the fiscal year it was found that only well water was being used, and that the installation of air lift pumping machinery was progressing. After the pumping facilities have been completed it is proposed to overhaul the filters.

HACKETTSTOWN: On August 1, 1913, a complaint in regard to the public water supply of this town was received. The trouble seemed to be confined to a single house, and was due to the condition of the long service line which connects the house with the distributing main.

HALEDON: The filters of the Haledon plant are not operated in the winter months as they are only needed to remove organisms growing in the summer. An inspection of the watershed was made on April 22, 1913, and practically no sources of dangerous pollution were discovered. On December 19, 1912, samples of the raw water were taken and analyzed. As these showed no pollution permission was given to by-pass the filters for the winter.

On July 28, and September 23, 1913, tests on raw and filtered water were made and at the September test, while the percentage reduction of bacteria was good, a few B. coli were indicated in the filtered water; and at a later test, October 30, the bacterial figures were much better.

JAMESBURG: N. J. State Home for Boys.—A partial report upon an inspection of the water supply for this Institution made November 25, 1912, is here given:

"The supply is derived from two distinct sources. One of these is a brook about a mile south of the Institution. This brook flows through wooded land for the most part, although a few cultivated fields border on it. The water is impounded in a reservoir about 200 feet long and 20 feet wide and 3 feet deep. At the time this reservoir was visited it contained a large amount of organic matter, consisting mostly of leaves. From this reservoir the water is pumped to a storage reservoir on the Institution grounds, from which reservoir it is pumped into a standpipe. The storage reservoir is built of brick, having a wooden cover built with spaces between the boards, which will allow a certain amount of dust and rain to enter. The reservoir is surrounded by a wooden fence.

"The sample taken from the brook above the reservoir showed B. coli present in 1.0 c. c., while the sample taken from the main reservoir showed B. coli in 0.1 c. c. It is not believed that this is an indication of dangerous pollution, as the watershed is small and sparsely inhabited.

"The other source is from a number of springs connected by underground, open joint terra cotta pipes, leading into a small reservoir on the Institution grounds. The sample from this

TABLE 65.—LAMBERTVILLE FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 15, 1912.		Jan. 2, 1913.		Jan. 8, 1913.		May 19, 1913.		July 17, 1913		Oct. 8, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0		8	0		25	0	30	0	30	0
Turbidity	20				10		0	0	5	0	100	0
Free Ammonia	.030	.042	.052	.038	.018		.098	.050	.080	.036	.134	.022
Alb. Ammonia	.156	.116	.084	.058	.090		.144	.150	.374	.094	.192	.076
Nitrites	.03	.002	.002	.001	.001		.004	.001	0	0	.001	.001
Nitrates	.12	.20	.72	.72	.12		.28	.20	0	.08	.08	0
Chlorine	4.0	4.0	4.0	4.0	3		3.5	3.5	2	2	2.5	2.5
Alkalinity	22	22	14	21			30	30	39	49	22	41
Iron	.5	.1					.3	0	.1	0		
Bacteria per c.c. 20° c.			5,600	1,000	4,000		370	55	175	17	34,000	270
Bacteria per c.c. 37° c.			245	100	60		125	20			2,300	5
Red Colonies per c.c.			0	0	0						200	0
B. Coli (presump.) in 5 c.c.	5	5	5	5	5		500	5	500	4	500	5

water showed B. coli absent in 10.0 c. c. From this reservoir the water is pumped into the standpipe."

LAMBERTVILLE: This plant was described in the 1912 report. Inspections and tests of the filters were made January 3, 1913, and an investigation was made of the watershed. The Company was advised to take action to secure a better quality of water.

On May 19, it was found that some of our recommendations had been carried out, and that new sand had been added to the filters. The bacterial reduction at this time was about 85%.

On July 22, 1913, the usual results were obtained, while on October 9, B. coli was indicated 10 in 10 c. c. (See table on page 401).

LONG BRANCH: Tintern Manor Water Company.—There are two water plants operated by this Company. The West End plant is operated the year round, while the Newman Springs Station, or Swimming River plant, is operated only during the summer.

These plants were inspected on May 29, 1913, at which time the West End plant was closed down for repairs on the pressure filters. The leaks in the shells of the filters were repaired by welding with the oxy-acetylene blow-pipe.

At the Swimming River plant it was found that previous recommendations made by this Department had been carried out. A reinforced concrete floor had been built over the clear water well, and other provisions made to keep raw water from leaky valves or other sources from entering the clear water. It is proposed to build a coagulation basin sometime before the next season.

On July 24, and August 26, tests were also made and both plants appeared to be delivering a good water. (See table on page 403).

MENDHAM: On April 29, 1913 an engineer visited Mendham and made an inspection of the Borough water supply in order to ascertain whether or not any change had been made

TABLE 66.—WEST END FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov 25, 1912		Feb. 10, 1913		July 24, 1913.		Aug. 26, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0	0	0	0	0	25	0
Turbidity	......	0	10	0	0	0	5	0
Free Ammonia	.058	.038	.074	.082	.042	.034	.088	.038
Alb. Ammonia	.038	.028	.042	.078	.110	.104	.116	.092
Nitrites	.015	.005	.002	.002	.003	.002	.003	.001
Nitrates	.24	.16	.24	.24	.16	.16	.12	.12
Chlorine	9	9	6.5	6.5	10	10	8	8
Alkalinity	17	13	10	4	28	22	27	25
Iron	......	......	.9	.2	.7	.1	.6	.1
Bacteria per c.c. 20° c.	......	......	200	4	105	37	230	6
Bacteria per c.c. 37° c.	......	......	90	7	150	21	175	4
Red Colonies per c.c.	......	......	0	0	1	0	0	0
B. Coli (presump.) in 5 c.c.	5	0	0	0	50	2	5	1

TABLE 67.—NEWMAN SPRINGS STATION PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

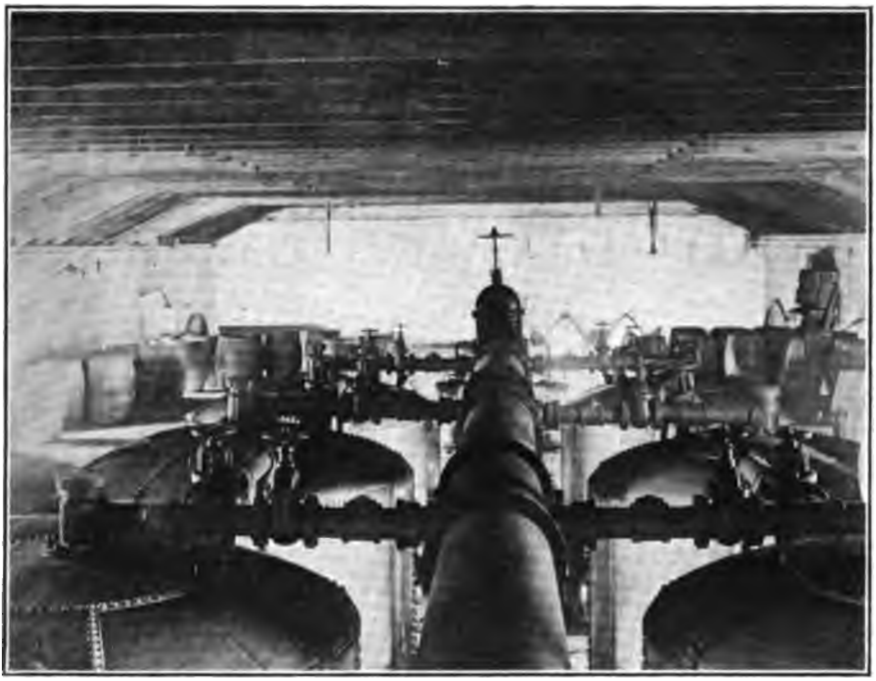
WATER ANALYSES.	May 29, 1913		July 24, 1913		Aug. 26, 1913	
	Raw.	Filt'd.	Raw	Fi't'd.	Raw.	Filt'd.
Color	50	0	40	0	50	0
Turbidity	30	0	15	0	40	0
Free Ammonia	.034	.026	.100	.040	.128	.068
Alb. Ammonia	.088	.032	.170	.108	.200	.108
Nitrites	.003	0	.002	.001	.002	0
Nitrates	.32	.40	.08	.12	.04	.08
Chlorine	6	6	7.5	7.5	6.0	6.5
Alkalinity	27	14	39	23	31	27
Iron	1	0	3.0	.1	1.4	0
Bacteria per c.c. 20° c.	370	5	64	27	110	10
Bacteria per c.c. 37° c.	60	0	......	70	120	17
Red Colonies per c.c.	......	0	......	0	0	0
B. Coli (presump.) in 5 c.c.	......	......	0	1	50	0

since the last visit, which would account for the high pollution shown in a sample collected some weeks previous. This supply was described quite fully in a report under date of February 26, 1912. No change has been made in the plant since that time, and it is highly probable that the pollution which was shown came from the Cramer Brook pipe line. There is only one house on the watershed, and this is about 300 feet or 400 feet distant from the end of this pipe line. It is not believed that the pollution which is shown can be of a dangerous character. It is recommended, however, that the Borough authorities be required to extend the Cramer Brook pipe line several hundred feet beyond the road in order that all chance of pollution either from the road or from the house and surroundings can be prevented.

TABLE 68.—MILLVILLE WATER COMPANY PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 7, 1912.		Dec. 10, 1912		Jan. 3, 1913.		Feb 26. 1913		Mar. 31, 1913		May 21, 1913		July 31, 1913.		Sept. 3, 1913		Oct. 23, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd	Raw.	Filt'd	Raw.	Filt'd.
Color	60	50	45	20	40	5	45	0	70	5	140	100	80	60	50	60	90	50
Turbidity	......	......	......	......	0	0	0	0	0	0	5	5	5	5	10	10	10	0
Free Ammonia	.038	.012	.030	.028	.030	.026	.065	.070	.158	.020	.084	.096	.038	.038	.058	.070	.070	.050
Alb. Ammonia	.092	.064	.080	.044	.082	.046	.075	.040	.104	.030	.116	.098	.072	.054	.192	.164	.096	.074
Nitrites	0	0	0	0	.001	0	.001	.001	0	0	0	0	.001	.001	0	0	0	0
Nitrates	.12	.12	......	......	.16	.12	.20	.16	.16	.12	.04	.04	.04	.04	.04	.04	.04	.04
Chlorine	3.5	3.5	......	......	4.5	4.5	4	6.5	3.5	3.5	3.5	4	4	4	3.5	3.5	4.5	4.5
Alkalinity	1.0	.3	......	......	0	11	1	8	1	6	2	9	3	10	8	19	1	5
Iron	.1	.2	......	......	......	......	.1	0	.5	.3	.4	.2	1.2	.5	.4	.4	.4	.4
Bacteria per c.c. 20° c.	......	......	260	25	200	5	74	2	100	4	44	5	12	11	2,000	37	46	1
Bacteria per c.c. 37° c.	......	......	......	......	1	3	19	1	17	......	1	0	17	56	650	21	17	1
Red Colonies per c.c.	......	......	0	0	0	0	0	0	0	......	0	0	0	......	0	0	0	0
B. Coli (presump.) in 5 c.c.	0	0	0	0	5	0	5	0	0	0	0	0	5	1	5	4	0	0



WEST END: Water Filters.

BRIDGETON: Water Plant. Operating Room.

Midland Park: The Bergen Water Company has installed a hypochlorite apparatus to treat the water from their 8 driven wells at Midland Park. On November 30, 1912, the new apparatus was inspected and it was found that calcium hypochlorite was being applied to the water in the proportion of .12 parts per million of available chlorine. The apparatus consists of a wooden mixing tank, a wooden solution tank, and a calibrated orifice float box. From the orifice box the solution discharges into a float box, from which it is taken into the suction line of the pumps.

On January 30, and May 27, the plant was tested and good results were obtained. Provision was then made for obtaining a sample of water before treatment, and on October 20 tests showed B. coli present in the raw water, but absent in the treated water, the dose being only .14 parts per million available chlorine.

Millville: This plant is still defective, notwithstanding repeated orders to improve it. The hypochlorite plant has never been put in a satisfactory condition and the filters frequently have little or no effect on the color of the water. By-pass valves were sealed on November 26, 1912. On December 10, it was found that no hypochlorite was being added the supply of bleach having become exhausted. On January 3, 1913, another visit was made and it was learned that the new supply of bleach had been received about December 15. The dose had, therefore, been suspended for about 10 days. Bad conditions were also found on February 27, 1913, and recommendations were made to the Board for action. On March 31, and May 21, 1913, the plant seemed to be giving very fair results. (See table on page 404).

Moorestown: This plant was visited and tested on January 8, 1913, and on April 2. On these occasions very satisfactory results were being obtained, and on the later date the engineer was instructed how to use copper sulphate to kill the algae in the pond, from which wash water for the filters was obtained. Good results were also obtained on October 21, 1913.

TABLE 69.—MOORESTOWN FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 8, 1912.		Jan. 8, 1913.		April 2, 1913.		July 16, 1913.		Aug. 20, 1913.		Oct. 21, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	70	0	0	0	15	0	40	0	50	0	40	0
Turbidity	70	....	10	0	10	0	40	0	20	0	5	0
Free Ammonia	.058	.034	.034	.032	.088	.044	.096	.054	.086	.090	.068	.052
Alb. Ammonia	.190	.044	.050	.036	.060	.032	.178	.094	.188	.078	.098	.070
Nitrites	0	.040	.002	0	.004	.002	.008	.003	.004	.001	.001	0
Nitrates	.28	.36	1.40	1.4	1.2	1.6	.72	.88	.60	.48	.36	.28
Chlorine	5.5	11	7.5	10	8.5	9	15.5	12.5	9	11	8.5	8.5
Alkalinity	7	17	3	5	5	8	17	21	25	21	13	15
Iron	.9	.2	....	....	.7	.1	.2	0	2.4	.1	.5	0
Bacteria per c.c. 20° c.	....	....	1,000	....	270	4	900	13	760	2	3,600	0
Bacteria per c.c. 37° c.	....	....	120	32	26	1	....	....	380	60	300	0
Red Colonies per c.c.	....	....	0	0	7	0	....	....	2	0	13	0
B. Coli (presump.) in 5 c.c.	50	0	5	0	0	0	50	2	50	0	50	0

MORRIS PLAINS: N. J. State Hospital.—This supply, consisting of springs, small streams and underground collecting galleries, was inspected on December 4, 5, 6, 9, 10 and 11, 1912, and extended investigations were made on the advisibility of some form of treatment to make the supply safe at all times. Parts of the supply are accessible to patients, and subject to some pollution from neighboring properties and roads. Various forms of treatment were discussed in a report and estimates made. The substance of these were transmitted to the head of the Institution.

On January 2—7, 1913, further investigations were made, and extended pitometer tests on the pipe lines were carried on to determine the actual water consumption.

In the dormitory building the flow at 2 o'clock in the morning is almost negligible, while at 8 o'clock in the morning it reaches its maximum. The maximum at this time is due to patients bathing, washing breakfast dishes and scrubbing out the wards.

"The pitometer curve for the 12" pipe corresponds to a gerater or less degree to that of the 8" pipe, although the peaks are continued over a longer period. It was noticed that on this line the consumption jumps up very rapidly between 5 o'clock and 6 o'clock in the morning, and drops off very rapidly between 3 o'clock and 3.30 o'clock in the afternoon. These sudden changes are due to the operation of the laundry, which consumes a considerable amount of water. The peculiar feature of this curve is the fact that from 12.30 A. M., to 4.30 A. M., the consumption is almost constant, and very much higher than would be expected, being a little over 21,000 gallons per hour. It is difficult to account for this high consumption, unless there is a large leak in the pipe lines somewhere, inasmuch as between 9.30 P. M., and 11.30 P. M., the lowest point during the 24 hours, it is 19,000 gallons per hour.

"The total amount used at the dormitory building during the 24 hours was 133,000 gallons, and at the lower group of buildings was 627,000 gallons, making a total of 760,000 gallons used by the Institution in 24 hours. This is about 270 gallons per capita, and seems much higher than it should be. It is a fact, however, that institutions of this character use a considerably greater amount of water per capita than would be used in the ordinary town."

After obtaining the results of these investigations one method of treatment was designed, described and transmitted to the Institution. On May 7, 1913, the relation of a private cesspool on a neighboring property to the Institution water supply was investigated. Recommendations for safeguarding the Institution water supply were transmitted.

MOUNTAIN LAKES: On June 23, 1913, an engineer visited Mountain Lakes and inspected the water supply system of the Hillcrest Water Company. The supply is derived from a driven well, 6 inches in diameter and 340 feet deep. The well is located in the bottom of a concrete receiving basin, about 18′x20′x10′ and is pumped by the air-lift process, discharging directly into the basin. From the collecting basin the water is pumped by a 5½″x8″ triplex pump to a standpipe on the hill above the plant. The daily consumption is about 50,000 gallons.

A report, dated October 3, 1913, from one of our inspectors, informs us that the water standpipe has been cleaned and painted, and covered with a conical wooden roof.

MOUNT HOLLY: This plant has been described on page 362 of the Report of 1911, and on page 384 of the Report of 1912. On November 14, 1912, this plant was visited and a seal placed on the valve on the line leading from the steam pump to the raw water suction well.

On December 14, 1912, the plant was inspected again, and again on January 30, 1913, at which time it was found that the alkalinity of the raw water was zero and that of the treated water was 2 parts per million. It was, therefore, recommended to increase the dose of soda ash from 1½ to 2½ grains per gallon. About 3 grains of alum and .2 parts per million available chlorine was being used, and the bacterial reduction was 84% in the 37° count and 95% in the 20° count, with the colon bacillus absent in 10 c. c., in the treated water.

On February 4, 1913, the condition of the raw water was such that the dose of 2 grains per gallon of soda ash was advised.

On February 20, tests were again made and the plant found to be operating in a normal manner. Arrangements were made to make pitometer tests on the force main to check our portable pitometer outfit with the Venturi meter. This was done at a later date.

On May 20 and August 30, the plant was again tested and found in good condition, the bacterial reduction being over 99% and the color removal from 150 in the raw water to zero in the filtered. (See table on page 410).

NEPTUNE TOWNSHIP: Monmouth County Water Company. —This plant was described on page 356 of the 1911 Report.

Special tests were made on February 28, June 6, August 19, and August 27, 1913. The tests have shown that a good water is uniformly produced from this installation. A laboratory is maintained on the premises, where frequent chemical and bacterial tests are made. (See table on page 411).

NEWARK: There appeared in the 1912 Report quite an extensive report on the watershed from which water is obtained for the City of Newark. The conditions found were practically the same as last, except that an emergency liquid chlorine disinfection plant has been placed in the gate house at the Macopin intake. This is only used in emergencies, or at such times as the raw water shows too many organisms, or is turbid from rains and surface wash.

The disinfecting outfit consists of an apparatus for controlling the dose of chlorine gas, which flows from iron cylinders, each containing 100 pounds of liquid chlorine. The gas is led through a pipe to the control apparatus, passing first through a pressure regulating valve. The pressure gauge shows constantly the

TABLE 70.—MOUNT HOLLY FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 8, 1912.		Dec. 13, 1912.		Jan. 22, 1913.		Feb. 20, 1913.		May 20, 1913.		Aug. 20, 1913.	
	Raw.	Fit'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filtd.	Raw.	Filt'd.
Color	60	0	50	0	60	0	50	0	150	0	70	0
Turbidity	50	0	....	0	0	0	5	5	10	0	30	0
Free Ammonia	.024	.012	.054	.038	.100	.028	.054	.048	.086	.054	.144	.030
Alb. Ammonia	.140	.038	.066	.032	.100	.040	.062	.046	.094	.052	.254	.064
Nitrites	0	.001	0	0	0	0	.001	.001	.002	.002	.002	.001
Nitrates	.16	0	.12	.04	.20	.08	.16	.12	.08	.08	.04	0
Chlorine	4	4	....	....	3.5	3.5	2	2	3.5	3.5	3	3.5
Alkalinity	1	16	2	8	Acid	2	2	5	Acid	5	8	9
Iron	1.5	.1	....	....	....	....	.4	0	.3	0	4	.3
Bacteria per c.c. 20° c.	....	....	616	38	....	20	80	5	400	8	6,000	20
Bacteria per c.c. 37° c.	....	....	....	4	45	10	15	5	1	0	....	15
Red Colonies per c.c.	....	....	2	0	0	0	4	0	....	0	....	0
B. Coli (presump.) in 5 c.c.	50	....	5	0	5	0	5	0	5	0	500	0

TABLE 71.—MONMOUTH COUNTY WATER CO. PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 22, 1912		Feb. 28, 1913		June 6, 1913.		Aug. 19, 1913	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0	70	0	70	0	30	0
Turbidity	......	0	30	0	25	0	20	5
Free Ammonia	.062	.074	.086	.082	.066	.086	.094	.092
Alb. Ammonia	.052	.032	.100	.060	.140	.088	.264	.112
Nitrites	.001	.001	.001	.001	.001	.001	.001	.002
Nitrates	.08	.08	.28	.12	.20	.20	.04	.04
Chlorine	9	9	6	6.5	8	8	8	8
Alkalinity	Acid	6	1	23	Acid	12	Acid	11
Iron	.4	.2	.6	.1	1.4	.2	.4	.1
Bacteria per c.c. 20° c.	......	......	3,300	90	2,050	185	770	500
Bacteria per c.c. 37° c.	......	......	280	11	68	4	400	124
Red Colonies per c. c.	......	......	3	0	0	0	15	13
B. Coli (presump.) in 5 c.c.	5	0	5	0	50	1	50	5

pressure in the cylinders, and the pressure valve admits the gas through the hand regulating valve, which is set to admit the proper dose. This dose is determined upon by the local chemist, and the attendant at the gate house reads off from a chart the proper height on the manometer scale, according to the flow of water through the mains. By turning the regulating valve the flow of gas automatically causes the height of liquid in the glass manometer to vary, and as soon as the column of liquid is at the required figure on the scale, which reads pounds of cholrine per 24 hours, the hand regulating valve is left in that position. The flow then remains constant and the water gets a constant dose until word is received that more or less water is needed or an increase or decrease of dose should be applied. It is only the work of an instant for the attendant to change the dosage. As soon as two cylinders become exhausted the apparatus automatically cuts out the empty cylinders and cuts in two full ones.

The apparatus is in duplicate on account of there being two separate pipe lines, extending from Macopin to Newark, and the plant is capable of treating 42,000,000 gallons per day.

Beyond a general supervision of this supply, the only tests which are regularly made are chemcal and bacterial tests at the Cedar Grove distributing reservoir. These tests have been made on January 31, February 17, and August 27. At each of these tests the water was found to be in good condition.

NEW BRUNSWICK: The hypochlorite treatment apparatus at the pumping station of the New Brunswick water works is still unsatisfactory, and inadequate to meet the demands upon it, although steps have been taken to rebuild and remodel it.

Tests were made of this plant November 11, 1912, December 26, 1912, January 14, April 3, May 1, and August 12, 1913. At these visits it was found that the dose of hypochlorite was .57, .99, .38, .92, .44 and .37 parts per million available chlorine, respectively, while the reports from the engineer indicated that about double this dose was applied. Notwithstanding the fact that these conditions had been repeatedly brought to the attention of the authorities, a detailed investigation, made on September 24, 30, and October 1, 1913, showed that the calcium hypochlorite was considerably under strength, and that over 50% was being wasted on account of crude methods of mixing, and an insufficient quantity of solution water. Furthermore, the practice of using barrels instead of a single tank, and an improvised dosing device resulted in a very irregular application. The results of this investigation were transmitted to the authorities, with recommendations. Steps were then taken towards rebuilding. Tests on October 16 showed the dose to be .7 parts per million available chlorine, and that only 72% of the chlorine in the dry powder was being utilized. Bacterial reduction was fair. B. coli was indicated 2 in 10 c. c.

NEW MILFORD: Hackensack Water Company.—This plant is one of the largest in the State, and has been described in former reports. A laboratory is maintained at the works, and daily tests are made. On this account the plant is not visited regularly by our trained men, but samples of the water are collected four times a year and analyzed. The Company is doing some extensive dredging in and along the banks of the river above the intake, in order to increase the amount of storage. This dredging is done by suction dredges and removes the silt and soil down to the clay stratum. This often causes a very high

TABLE 72.—NEW BRUNSWICK TREATMENT PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Dec. 26, 1912		Jan. 14, 1913.		Feb. 14, 1913		Mar. 10, 1913		Apr. 3, 1913.		May 1, 1913.		Aug. 12, 1913		Sept. 30, 1913		Oct. 16, 1913.	
	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd	Raw.	Tre'd
Color	......	0	......	0	......	30	......	25	......	50	......	50	......	80	......	50	......	10
Turbidity	......	......	......	20	......	10	......	15	......	25	......	5	......	10	......	10	......	5
Free Ammonia	......	.126	......	.070	......	.054	......	.082	......	.064	......	.054	......	.090	......	.046	......	.122
Alb. Ammonia	......	.068	......	.106	......	.068	......	.088	......	.110	......	.098	......	.174	......	.102	......	.098
Nitrites	......	0	......	0	......	.001	......	.001	......	.001	......	.001	......	.001	......	.001	......	.001
Nitrates	......	24	......	.28	......	.36	......	.36	......	.24	......	.20	......	.08	......	.08	......	.08
Chlorine	......	7.5	......	5	......	4	......	5	......	5.5	......	5	......	6	......	6.5	......	7
Alkalinity	......	2	......	Acid	......	3	......	1	......	3	......	8	......	10	......	6	......	10
Iron	......	......	......	......	......	......	......	.5	......	.6	......	.6	......	1.5	......	......	......	1.2
Bacteria per c.c. 20° c.	2,000	38	2,400	75	3,700	57	550	91	270	90	1,250	450	170	26	78	21	600	80
Bactena per c.c. 37° c.	170	44	290	53	60	25	100	96	140	73	70	68	40	13	41	1	125	34
Red Colonies per c.c.	0	0	0	0	0	0	0	0	0	0	6	4	1	0	0	0	11	0
B. Coli (presump) in 5 c c.	5	0	0	0	0	0	5	0	5	1	5	4	5	2	0	0	5	0

turbidity of very finely divided clay, which is difficult to remove, so that at times the filtered water contains a slight opalescent turbidity, due to the clay going through the filters.

On March 12, 1913, it became necessary to by-pass the filters for the purpose of repairing two valves. The filters were out of commission 6½ hours, and during this time an engineer from this Division was present. As soon as the valve connecting the raw water with the suction well was repaired and closed it was sealed and the filters started up.

The engineer arrived at the plant at 7.00 A. M., on March 12. At this time he learned that Mr. Spalding had had the river dosed with alum at Oradell, about one and one-half miles above the intake. The normal flow of the river at this time was about 75 million gallons per day, but by shutting the gates at the dam at Oradell, it was possible to reduce the flow to about 50 million gallons per day, and this was treated with sulphate of aluminum at the rate of about 800 pounds per hour, or in the proportion of 2.7 grains per gallon. This treatment was started about 10:00 A. M., March 11, and when the engineer arrived he found the water at the intake to be perfectly clear; a sample taken at that time showed no turbidity, but had a small amount of aluminum hydrate in suspension. It was believed that the amount of hydrate was so small that the consumer would not be aware that there was any change in the operation of the plant, inasmuch as this water would be mixed somewhat with the water already filtered. A pipe had been laid from the filter plant to the intake for dosing the water with calcium hypochlorite, and this was dosed at the rate of about five pounds per million gallons.

The analytical results for the past month were examined and these showed that while B. coli was present almost universally in 10 c. c. in the raw water, in the settled water it was only present about 50% of the time, and in the filtered water was absent at all times. Very good reduction in the total bacteria at 20° was achieved by precipitation only; the count per c. c., in the raw water was about 1500, in the settled water about 50, and in the filtered water about 5 B. coli was absent in 10 c. c. For this reason it seemed that the dose of hypochlorite was sufficiently high. Another reason for believing this was that the chemist in charge of the plant used the Sims Woodhead test exclusively in determining the necessary amount of hypochlorite to add to the water, and tests that were made on the raw water during the period that the filters were out of commission, showed that the amount being added was correct.

ORANGE: On December 16, 1912, a representative of this Division visited Orange, and went with the Health Officer and three other gentlemen over the Orange watershed. The whole shed is subject to a great deal of pollution from surface wash from roads; fields and yards, and drainage from barnyards, pastures and habitations. The watershed is very small, although it is estimated that nearly one thousand people live thereon.

It is not possible to abate all the pollutions on this shed and the water is therefore not safe, as the greater portion of it gets no storage. Furthermore, after every rain there are complaints about the turbidity of the water.

The frequent analyses of this supply have indicated that the water is of doubtful quality, and these facts have been brought to the attention of the authorities of Orange from time to time. If the present source of supply is to be preserved a filter plant should be installed.

An inspection of the watershed was made later in December, and all cases of pollution which come within the law have been taken up.

PITMAN: N. J. Conference Camp Meeting Association.—The supply which is owned by the above named corporation, (incorporated in 1871), is taken from a well about 180 feet deep. David H. Schock is Superintendent of this Association, which is a real estate development company.

A section of land within the limits of Pitman Borough, was purchased some time ago, and is let to campers who have put up houses on the grounds. This section is known as Pitman Grove.

This water supply reaches about 500 dwellings and all of these with the exception of three are within the Grove. Very few of these houses are occupied in the winter time. The consumption in summer is from 75,000 to 80,000 gallons daily, whereas in winter about 16,000 gallons are used.

The well is located in a settled portion of the grove, and is within a brick building used as a pumping station. This well has an 8″ casing which goes down 110 feet. A 4″ delivery pipe is within the casing. The water level is about 17 feet below the ground surface and this apparently does not vary materially.

Water is raised by air lift and is discharged into a brick and cement cistern, 50 feet in diameter and 12′-4′ deep, which is located just outside the building. The cistern is completely covered by a shingle roof. From the cistern the water is pumped to a 70′x15′ standpipe of 93,000 gallons capacity. A Worthington double action steam pump is used for this purpose.

The pipe lines of this water supply are connected up with those of the Pitman Water Company, so that at times of fire both supplies would be available. The systems are separated by a gate valve which is ordinarily kept closed.

PITMAN: Pitman Water Company.—This Company was established in 1901. Its supply is derived from an 8″ well, 238 feet deep. There is also a 5″ well, 550 feet deep, but this is not being used at present. The wells and the pumping station, as well as the cistern and elevated tank, are located within the Borough limits a few hundred feet east of the railroad.

This water is supplied to about 475 residences outside of the Grove. These consumers are nearly all permanent residents, less than 5% of the houses being cut off during the winter. Practically all of this service is metered. The maximum consumption for July 1911 was about 74,000 gallons daily, whreas the minimum consumption occurred in February, being about 35,000 gallons daily.

The water is raised from the well by air lift, and is discharged into a 50,000 gallon brick and cement reservoir, covered with a shingle roof, from there a pump, driven by a gas engine, raises the water to a 30,000 gallon elevated tank.

RAHWAY: Middlesex Water Company.—On March 7, 1913, this plant was inspected and found to be giving good results. A hypochlorite plant has been installed at these works, but it is rarely ever used. Bacterial reduction at the test on September 29, 1913, was fair, and on October 17, a letter was received from the Superintendent, stating that an expert of the filter company was coming to go over the filters, in order to improve their work. (See table on page 418).

RAHWAY: Municipal Water works.—The water purification plant for the water supply for the City of Rahway consists of a series of pressure filters, a description of which will be found in previous reports.

A laboratory is maintained at the works, and daily tests are conducted by the Chief Engineer. Results of his tests are forwarded to the consulting chemist and bacteriologist in New York, who likewise takes samples at irregular intervals for the purpose of checking up the engineer. In general, the performance of the plant is satisfactory; but extensive improvements are urgently needed, and already steps have been taken to make these improvements. The condition of the Rahway River varies considerably at different seasons, and at times on account of lack of proper facilities it is very difficult to produce a satisfactory water.

On November 12, 1912, a representative of this Division placed seals on the valves, which when opened will allow raw water to be pumped directly into the mains.

This plant is visited monthly by representatives of this Division, and the watershed is frequently inspected for the purpose of discovering and eliminating as many sources of pollution as possible. The dosing of hypochlorite has been found in many in-

TABLE 73.—MIDDLESEX WATER CO. PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 18, 1912.		Dec. 31, 1912.		Mar. 7, 1913.		June 17, 1913		Sept. 29, 1913.		Oct. 27, 1913.	
	Raw	Filt'd.	Raw.	Filt'd.	Raw	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	60	50	0	0	0	0	50	20	40	0	60	0
Turbidity			80	0	60	5	5	0	80	0	30	0
Free Ammonia	.094	.054	.066	.082	.092	.068	.058	.060	.040	.016	.128	.054
Alb. Ammonia	.190	.124	.142	.056	.128	.072	.190	.132	.250	.070	.164	.064
Nitrites	.005	0	.002	0	.003	.002	.001	.001	.001	.001	.006	0
Nitrates	.12	.08	.24	.24	.16	.12	.04	.04	.04	.028	.40	.40
Chlorine	7	6.5	4.5	4.5	2.5	2	4.5	4.5	7.5	7.7	7.5	8
Alkalinity	20	14	3	3	10	4	42	34	66	82	25	5
Iron	.1	.1			1.	.2	.2	.2	.2	0	.1	0
Bacteria per c.c. 20° c.			26,000	850	15,000		2,700	640	3,300	200	16,000	2
Bacteria per c.c. 37° c.			2,170	17		60		140	115	20	1,900	2
Red Colonies per c.c.				0		0		0	0	0	80	0
B Coli (presump.) in 5 c.c	5	1	50	3	5	0	5	0	5	2	50	0

TABLE 74.—RAHWAY MUNICIPAL FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 18, 1912		Dec. 31. 1912		Jan. 20, 1913.		Feb. 5, 1913.		April 1, 1913		May 9, 1913.		June 17, 1913		Aug. 13, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw	Filt'd	Raw.	Filt'd.
Color	30	......	0	0	0	0	0	0	25	0	10	0	......	10	10	0
Turbidity	......	......	140	......	90	0	20	10	15	0	5	0	......	5	10	5
Free Ammonia	.024	......	.114	.134	.072	.072	.046	.052	.022	.028	.036	.048	......	.066	.072	.040
Alb. Ammonia.	.104	......	.176	.072	.094	.044	.062	.056	.098	.054	.090	.072	......	.126	.138	.102
Nitrites.	.007	......	.005	0	.003	0	.004	.001	.005	0	.007	.001	......	.005	.004	0
Nitrates	.16	......	.64	.54	.72	.60	1.	.80	.56	.38	.28	.32	......	.20	.04	.08
Chlorine.	8	......	5	6	7.5	7.5	8.5	8.5	7.5	7.5	8	8	......	8	8.5	8.5
Alkalinity.	56	......	6	3	30	16	4.4	3.1	37	17	70	65	......	71	79	75
Iron.	.2	......	......	......	......	......	......	......	.3	0	.2	.1	......	.1	.4	0
Bacteria per c.c. 20° c.	......	......	4,600	95	7,500	8	600	43	800	64	1,200	12	2,380	580	......	37
Bacteria per c.c. 37° c.	......	......	3,360	......	300	16	60	7	80	24	170	10	450	......	150	8
Red Colonies per c.c.	......	......	0	0	0	0	10	0	1	0	0	0	5	......	7	0
B. Col' (presump.) in 5 c.c.	5	......	500	0	5	0	5	0	50	1	50	0	50	3	5	0

stances to have been erratic and this has been brought to the attention of the City authorities, and to the Consulting Engineer.

Considerable pressure has been brought to bear upon the city authorities, to overhaul this plant and provide the necessary features which are lacking, and until the such improvements are made it will be somewhat difficult to keep the operation up to a high standard of efficiency. It is, however, believed that something will be done in the near future to bring this plant up to date. One of the causes for delay has been lack of funds.

Recently a report was received from the Consulting Engineer, in regard to alleged pollutions existing on the watershed, and an inspector was sent to verify this report. Every pollution which could be remedied was taken up, the discrepancies between the Consulting Engineer's report and our inspectors' reports have been adjusted, and it is hoped that within a short time there will be nothing on the watershed which will be of a character to cause complaint by the Rahway Water Department.

On August 13, 1913, bacterial reduction was 94%. (See table on page 419).

RAHWAY: New Jersey State Reformatory.—From a report on a proposed water supply for this Institution, the following is quoted:

"The supply is to be derived from a subterranean collecting system, within the walls of the Institution. This consists of a suction well, 10 feet in diameter and about 25 feet deep. The walls of the well are constructed of concrete, resting on bed rock. From this suction well, collecting galleries lead to the east, south and west an average distance of about 60 feet. These galleries are three feet wide and four feet high, constructed with concrete sides and top and resting on bed rock. Through the side walls are numerous openings for allowing the entrance of ground water. From the suction well the water is to be pumped by a motor-driven centrifugal pump to a softener plant, about 100 feet distant.

"This well and plant were constructed by the inmates of the Institution, in accordance with plans drawn by E. B. Phelps, in 1911. This office had no knowledge of the construction of this plant until the request for an analysis of the water of the well was received a few weeks ago.

"The present supply is purchased from the City of Rahway. A number of years ago, before the City installed their filtration plant, pressure filters were placed on the lines supplying the Institution, and all the water used has been filtered in that manner. In order to obviate the necessity of paying out a large amount of money each year for water, it was deemed advisable to provide a separate supply for the institution in 1910, a well was drilled just outside the Institution grounds. This well is 8 inches in diameter and about 500 feet deep, and flows naturally about 35 to 50 gallons per minute. Analyses made of the water from this well showed the following figures: solids 2000 parts per million, chlorine 43 parts, alkalinity 153 parts, and total hardness 766 parts. It was also high in sulphate and magnesia. The water from this well was too hard to be satisfactory, and the authorities of the Institution, therefore, attempted to dig a well, similar to the one recently constructed outside the Institution grounds. At this point, however, bed rock was struck about 10 feet below the surface and the scheme was abandoned."

RARITAN: A description of this plant has been given in former reports, although recently additional filters have been installed, for description of which see report of the Engineering Department.

This plant was visited on December 18, 1912, and the usual routine tests were made. Arrangements at this time were also made with the Engineer for making pitometer tests.

On January 15 and 29, two representatives of this Division visited the waterworks and made extended experiments and measurements upon the filters and pipe lines. The results of the

TABLE 75.—RARITAN FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 21, 1912.		Dec. 18, 1912.		Jan. 29, 1913.		Feb. 4, 1913.		Feb 27, 1913.		Mar. 26, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Fit'd.	Raw.	Filt'd	Raw.	Filt'd.
Color	0	0	0	0	....	....	0	0	0	0	0	0
Turbidity	....	....	....	0	....	....	15	0	20	10	25	10
Free Ammonia	.026	.012	.022	.036	.012	.024	.026	.034	.046	.054	.088	.042
Alb. Ammonia	.060	.048	.032	.034	.030	.022	.042	.030	.076	.061	.076	.042
Nitrites	.002	0	.003	.002	.001	.001	.001	.001	.003	.003	.002	.002
Nitrates	.56	.56	.80	.72	.72	.72	.60	.60	.60	.52	.48	.36
Chlorine	3	3.5	3.5	3.5	2	3	3.5	3.5	3.5	3.5	3	3.5
Alkalinity	37	30	33	25	26	16	25	14	32	25	28	13
Iron	0	0	....	....	....	....	.1	0	.1	0	.1	0
Bacteria per c.c. 20° c.	....	....	600	90	....	....	1,500	100	640	237	400	40
Bacteria per c.c. 37° c.	....	....	51	2	....	....	80	4	200	46	38	3
Red Colonies per c.c.	....	....	0	0	....	....	10	0	11	1	0	0
B. Coli (presump.) in 5 c.c.	5	1	5	5	5	0	50	0	0	0	5	0

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	April 18, 1913.		May 16, 1913.		June 20, 1913.		Aug. 15, 1913.		Oct. 8, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	10	0	10	0	20	0	0	0	10	0
Turbidity	25	0	20	0	30	5	100	0	30	0
Free Ammonia	.030	.034	.044	.046	.080	....	.060	.038	.068	.024
Alb. Ammonia	.074	.032	.082	.076	.090	....	.152	.072	.104	.068
Nitrites	.002	.001	.006	.005	.007	.005	.004	.002	.002	0
Nitrates	.40	.60	.32	.32	.28	.32	.08	.16	.40	.36
Chlorine	3	3	8.5	3.5	3.5	3.5	3.5	4	5	5
Alkalinity	25	11	42	34	53	34	61	45	36	23
Iron	.5	0	.2	0	2.0	0	.3	0	.8	0
Bacteria per c.c. 20° c.	3,750	225	1,300	62	2,400	560	1,400	18	1,600	20
Bacteria per c.c. 37° c.	260	5	125	8	420	48	275	7	130	0
Red Colonies per c.c.	6	1	3	0	6	1	9	0	14	0
B. Coli (presump.) in c.c.	5	0	50	0	5	0	50	0	500	0

experiments and pitometer tests are compiled in a report, the details of which need not be recorded here.

On February 27, March 26, and April 18, the regular routine tests were made and the filters found to be operating in the usual manner, and giving very fair results.

On August 24, a telegram from the Superintendent was received, stating that the seal on the valve admitting raw water into the system had been broken on account of a fire. This was in accordance with the provisions of Chapter 317, Laws of 1912.

On August 15, routine tests on the raw and filtered water were again made, the results of which showed very good bacterial reduction.

On October 8, a further test was made and at this time it was noted that two of the new filters had been installed. They were put in by the New York Continental Jewell Filtration Company, and are of the same type as the three horizontal pressure filters of the former installation. Each has a rated capacity of 500,000 gallons per day. A hypochlorite plant had been installed, but had not been put in operation. The Superintendent promised to notify the State Board when it was proposed to start the hypochlorite treatment. Other minor improvements to the plant have been proposed and no doubt will be installed in the near future. (See table on page 422).

ROCKAWAY: Frequent attempts have been made to have this supply improved or abandoned. Up to the present time nothing definite has been accomplished. The supply is inadequate both in quality and quantity.

ROEBLING: This purification plant, consisting of three gravity rapid sand filters, equipped with alum and hypochlorite feeds which deliver the chemicals into a coagulation basin, is located in the corner of one of the power houses of the Roebling plant at Roebling, New Jersey, and has a rated capacity of 500,000 gallons per day.

On December 5 and 6, the plant was visited and the usual tests made. It was found that the plant was being run more by rule of thumb than upon scientific principles, and an endeavor was made to obtain sufficient data, upon which to base recommendations. These data were promised by the Superintendent in charge, and a further inspection was made on the 16th of January. At this time bacterial reduction was about 95%, and the strengths of the solutions were determined; but as it was impossible to determine the amount of water treated, it was difficult to regulate the dose with any degree of certainty.

On February 11, the plant was again inspected and tests made, which again showed results not in accordance with those calculated by the Superintendent.

On March 5, certain information previously asked for, was received, and on March 20, a representative of this Division made a more extended investigation of the filtration plant, to learn if possible, the causes of the unsatisfactory results for some time past.

It was determined that the sedimentation basin had a storage of about two hours and forty-five minutes, which should be long enough for most of the seasons of the year; that the rate of filtration was not high; that accordnig to the records kept at the plant about .9 of a grain per gallon of sulphate of aluminum was being added to the water. This under ordinary conditions should be sufficient, but on account of a defective butterfly valve, admitting the raw water to the coagulation basin, this basin was allowed to overflow whenever the filters failed to take the complete flow of water from the standpipe, which was quite often. This resulted in a waste of chemicals and gave a false idea of the amount of water treated, because it was impossible to learn how much water was wasted in this way, and the estimates were based on the amount of filtered water pumped.

An examination of the sand and air system resulted in the cleaning out of the beds, replacing the corroded air pipes with new ones, and the replacing of gravel and sand in the beds. The rate controllers were examined and found to be in bad condition.

Further tests were made from time to time and on May 23, the bacterial reduction was about 92%.

On July 9, the regular monthly test showed that this plant was again giving poor results. Another investigation was made, and recommendations for improvements were made to the company. A conference between representatives of the Company, representatives of the Engineering Company, who installed the plant, and representatives of the State Board, was held, the result of which was that the Engineering Company was employed to submit plans, for a thorough reconstruction of the plant, in accordance with the general recommendations made by the State Board. This work is now proceeding.

It is proposed to provide for proper measurement of both raw and filtered water; proper chemical dosing apparatus; proper rate controllers, and loss of head gauges; and in addition to install special valves, and a re-wash line of pipe. so that the filters can be run to waste for a period after each washing, and not empty immediately into the clear water well, as was formerly the case. In addition to these main features, several other minor improvements are also proposed so that when the installation is completed, with proper management, this plant should be capable of producing water of satisfactory quality. In the meantime regular tests have been made, and while the percentage reduction has been quite high, due to the fact that the raw water is heavily polluted, on September 24, B. coli was indicated 8 in 10 c. c. in the filtered water. The total count, however, on agar, at 20° was but 16 per c. c., and the 37° count on litmus lactose agar was but 4 per c. c. with no red colonies.

On October 13 the results were somewhat better; raw water, 20° count, 4000 per c. c.; 37° count, 1200 per c. c.; and 125 red colonies; B. coli indicated in .01 c. c. Treated and filtered water, 20° count, 4 per c. c.; 37° count, 1 per c. c., and no red colonies; B. coli indicated 2 in 10 c. c.

TABLE 76.—ROEBLING FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	Nov. 15, 1912.		Dec. 5, 1912.		Jan. 16, 1913.		Feb. 11, 1913.		April 23, 1913.		May 23, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0	......	......	10	0	80	0	15	15	20	0
Turbidity	50	0	......	......	25	10	25	5	10	5	40	5
Free Ammonia	.054	.040	.072	.084	.054	.074	.094	.102	.054	.052	.156	.150
Alb. Ammonia	.098	.034	.136	.080	.066	.054	.068	.038	.088	.060	.100	.058
Nitrites	.002	0	.003	.002	.001	0	.001	.001	.003	.002	.005	.003
Nitrates	.16	.16	.28	.32	.48	.40	.32	.24	.28	.24	.24	.24
Chlorine	3.5	4	3.5	3.5	3.5	4	5	4	4	4.5	4	4
Alkalinity	14	9	......	......	11	13	22	24	24	21	34	34
Iron	.5	0	......	......	......	......	......	......	.5	.4	2.5	.4
Bacteria per c.c. 20° c.	......	......	500	150	1,230	70	400	75	2,000	100	5,200	320
Bacteria per c.c. 37° c.	......	......	44	8	140	12	380	13	85	12	170	2
Red Colonies c.c.	......	......	2	1	0	0	10	0	8	0	26	0
B. Coli (presump.) in 5 c.c.	50	5	50	2	50	2	50	1	5	2	5	4

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

WATER ANALYSES.	July 9, 1913.		July 15, 1913.		July 22, 1913.		Aug. 11, 1913.		Sept. 24, 1913.		Oct. 13, 1913.	
	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	50	0	10	0	45	0	40	0	30	0	......	10
Turbidity	20	0	25	5	20	0	30	5	40	0	25	10
Free Ammonia	.116	.134	.170	.132	.132	.074	.070	.050	.070	.050	.104	.035
Alb. Ammonia	.152	.136	.130	.138	.170	.092	.228	.116	.142	.092	.104	.098
Nitrites	.012	.008	.016	.015	.010	.003	.003	.001	.008	.002	.004	.001
Nitrates	.16	.16	.28	.28	.28	.28	.08	.12	.32	.40	.20	.32
Chlorine	9	10	6	6.5	8	8	9	7.5	.6	6.5	10	20.5
Alkalinity	46	51	52	48	54	43	47	42	54	33	35	24
Iron	......	.4	......	......	.3	0	5.6	.5	1.2	.1	.5	.4
Bacteria per c.c. 20° c.	1,400	3,500	330	120	1,500	10	300	20	2,100	12	4,900	6
Bacteria per c.c. 37° c.	550	190	140	30	430	2	150	40	750	3	1,420	0
Red Colonies per c.c.	22	22	80	0	40	0	70	0	35	0	160	0
B. Coli (presump.) in 5 c.c.	50	5	50	5	500	0	50	0	50	5	50	1

SKILLMAN: The filtration plant for the water supply of the New Jersey State Village for Epileptics at Skillman, N. J., has been described in former reports.

It has been the practice during the past year to make monthly inspections and tests at this plant.

On December 16, 1912, January 9, 11, 21, February 11 and April 25, 1913, the plant was visited. On several of the above dates the plant was found to be shut down because sufficient water had been stored and it was not necessary to run the filters. On the latter date the bacterial reduction was 99.8% in the 20° count. At other times the reduction was fair, and now and then directions were given in regard to the regulation of the alkalinity of the water.

On July 29 and on August 18 inspections and tests were made, and on the latter date it was found that an unnecessarily large amount of alum was being used. Recommendations were transmitted to the Superintendent of the institution to reduce the amount of alum from 29 pounds to 19 pounds per tank.

On September 23, a communication from the Superintendent of the Village stated that the installation of a new water filter had been completed. (See table on page 428).

TOMS RIVER: The water works of the Toms River Water Company were inspected June 19, 1913, and it was found that three new wells, 6 inches in diameter and 37 feet deep, had been driven. Two of these wells were in service and one of them was not connected. One old well was in use, but two old wells have been abandoned. Mr. Snyder stated that the minimum pumpage at present was 40,000 gallons per day and the maximum 175,000 gallons per day.

Two valves on the pump suction line running from the creek were sealed, so that it will be impossible to pump creek water into the mains without first breaking the seals.

TABLE 77.—SKILLMAN FILTER PLANT.

RESULTS OF CHEMICAL ANALYSIS EXPRESSED IN PARTS PER MILLION

	Nov. 21, 1912.		Dec. 16, 1912.		Jan. 9, 1913.		Feb. 11, 1913.		Apr. 25, 1913.		July 29, 1913.		Aug. 18, 1913.		Oct. 22, 1913.	
WATER ANALYSES.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.	Raw.	Filt'd.
Color	0	0	......	......	10	0	0	0	20	0	30	30	50	10	0	0
Turbidity	......	0	......	......	80	0	10	0	15	0	80	70	20	5	5	0
Free Ammonia	.056	.042	.038	.050	.022	.036	.034	.060	.036	.030	.340	.224	.294	.118	.140	.122
Alb Ammonia	.072	.062	.048	.034	.074	.032	.056	.038	.054	.028	.500	.304	.550	.201	.112	.066
Nitrites	.005	0	.003	.001	.001	0	.001	0	.002	.001	.001	.003	.001	.002	.006	.003
Nitrates	.36	.80	.32	.28	.32	.56	.20	.24	.28	.16	.08	08	.04	.04	.16	.12
Chlorine	6	6.5	7	7	4	4.5	4	5	3.5	3.5	5.5	6	4.5	4.5	6	6
Alkalinity	20	30	......	......	6	0	23	15	23	14	61	56	46	37	33	22
Iron	.1	0	......	......	......	......	......	......	.3	0	4.4	1.7	.8	.1	.7	.1
Bacteria per c.c. 20° c.	......	......	420	......	5,000	2	1,500	16	800	0	400	......	170	50	360	20
Bacteria per c.c. 37° c.	......	......	104	0	700	2	60	35	24	5	......	......	......	......	82	24
Red Colonies per c.c.	......	......	0	0	0	0	0	0	0	0	......	......	......	......	0	0
B. Coli (presump.) in 5 c.c.	1	0	5	0	5	0	0	0	50	0	500	5	50	4	5	0

TRENTON: The hypochlorite treatment plant at the water works pumping station is under the supervision of the City Chemist, and Chief Engineer, and usually produces good results, although at times unpleasant tastes and odors occur in the water. This happens because of sudden changes in the character of the raw water and in temperature, and because of the difficulty of determining the proper dose soon enough to compensate for these changes.

At times results of analyses show bacterial counts considerably higher than they should. These conditions are immediately reported to the City authorities.

On Saturday, May 3, about 6 P. M., a telephone message was received, stating that the hypochlorite feed pipe line had become so clogged that the plant was out of commission. A representative of this Division immediately visited the works and got the Chief Engineer to lay a new temporary line of pipe on th surface of the ground. At 9.15 P. M. the flow of bleach was again started.

WOODBURY: The watershed furnishing the public supply for the City of Woodbury, comprises a territory of about a dozen square miles, located along Mantua Creek and tributaries between Sewell and Glassboro. There is a considerable resident population on the shed, and in addition much of the land is used for farming and pasture purposes. The streams are frequented by fishermen, and the meadows by hunters. At one locality a picnic resort is maintained, where boating, fishing and swimming are indulged in. Considerable surface drainage, street and road washings enter the streams. The brooks are crossed by about two dozen bridges on the shed.

Whenever an inspection of the watershed is made, few if any definite sources of human pollution, beyond those mentioned above, can be located; but owing to the danger for chance pollution, and on account of the unavoidable animal contamination, repeated attempts have been made to convince the people of

Woodbury that a modern filtration plant, or a better supply is a necessity. In order to improve conditions the problem of filtration has been considered by the Woodbury authorities and test wells are now being sunk near the pumping station, in the hope of securing a ground water supply. The former test wells near the city have been abandoned. In the meantime the hypochlorite treatment is being continued, although strongly opposed by many of the residents and physicians.

The plant was inspected on December 3, 1912, December 6, 1912, January 10, March 28, 1913. At all of these tests very good results were obtained.

TABLE 78.—PUBLIC WATER

TOWN.	SUPPLIED BY
Absecon	Pleasantville Water Co. (see Pleasantville)
Acquackanonk Township	Yantacaw Water Co. (see Delawanna)
Aldene	Plainfield-Union Water Co. (see Netherwood)
Allenhurst	Borough of Allenhurst
Allentown	Borough of Allentown
Ampere	City of East Orange (see East Orange)
Anglesea	Wildwood Water Works Co. (see Wildwood)
Annandale	Clinton Water & Water Supply Co. (see Clinton)
Arlington	Montclair Water Co. (see Little Falls)
Asbury Park	City of Asbury Park
Asbury Park	Monmouth County Water Co. (see Neptune Township)
Athenia	Montclair Water Co. (see Little Falls)
Atlantic City	City of Atlantic City
Atlantic Highlands	Borough of Atlantic Highlands
Audubon	Haddonfield Water Co. (see Haddonfield)
Avalon	Borough of Avalon
Avon	Monmouth County Water Co. (see Neptune Township)
Avondale	Montclair Water Co. (see Little Falls)
Barnegat	Barnegat Water Co
Basking Ridge	Bernards Water Co. (see Bernardsville)
Bayhead	Bayhead Artesian Water Co
Bayonne	Montclair Water Co. (see Little Falls)
Beach Haven	Borough of Beach Haven
Beach Haven Terrace	Fidelity Land Co
Beachwood Heights	Watchung Water Co. (see Dunellen)
Belleville	City of Newark (see Newark)
Belmar	Borough of Belmar
Belvidere	Belvidere Water Co
Belvidere	Buckhorn Springs Water Co
Bergenfield	Hackensack Water Co. (see New Milford)
Bernardsville	Bernards Water Co
Bernardsville	Frank B. Allen
Beverly	Delaware River Water Co
Blackwood	Blackwood Water Co
Blairstown	Blairstown Water Co
Bloomfield	Montclair Water Co. (see Little Falls)
Bloomingdale	Butler Water Co. (see Butler)
Bloomsbury	Bloomsbury Water Co
Bogota	Bogota Water & Light Co
Boonton	United Water Supply Co
Bordentown	City of Bordentown
Bound Brook	Bound Brook Water Co
Bradley Beach	Monmouth County Water Co. (see Neptune Township)
Bradley Park	Monmouth County Water Co. (see Neptune Township)
Branchville	Borough of Branchville
Brant Beach	Beach Haven North Co
Brick Church	City of East Orange (see East Orange)
Bridgeport	Bridgeport Water Co
Bridgeton	City of Bridgeton
Bridgewater Township	Bound Brook Water Co. (see Bound Brook)
Brown's Mills	Brown's Mills Water Co
Burlington	City of Burlington
Butler	Butler Water Co
Caldwell	Essex Fells Electric Light & Water Co. (see Essex Fells)
Califon	Califon Water Co

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Wells	Filtration	50,000-300,000
Pond	Filtration	12,000
Wells	Filtration	600,000
Springs		
Wells and Absecon Creek		8,000,000-12,000,000
Wells	Filtration	150,000
Well		
Well		15,000
Wells		15,000-150,000
Wells		75,000
Well		
Wells		150,000-1,000,000
Delaware River		100,000
Buckhorn Creek and Spring		125,000
Passaic River		150,000
Springs		
Wells		500,000
Cedar Lake		30,000
Well		50,000
Spring & Pine Hollow Brook		40,000
Well		30,000
Brook		750,000
Springs		400,000
Middle Brook and Wells		275,000
Dry Brook		
Well		
Wells		
Tumbling Dam Pond	Filtration and disinfection	1,400,000
Well		25,000
Delaware River	Filtration and disinfection	850,000
Wells		90,000
Springs		

PUBLIC WATER SUPPLIES

TOWN.	SUPPLIED BY
Califon	Dr. I. Topkins
Camden	City of Camden
Camden	Stockton Water Co.
Cape May City	City of Cape May
Cape May Court House	Neptune Water Co.
Cape May Point	Borough of Cape May Point
Carlstadt	Hackensack Water Co. (see New Milford)
Carlton Hill	Hackensack Water Co. (see New Milford)
Carteret	Middlesex Water Co. (see Rahway)
Chatham	Borough of Chatham
Chrome	Middlesex Water Co. (see Rahway)
Cinamminson Township	Riverton-Palmyra Water Co. (see Riverton)
Clarksboro	Charles Stewart
Clayton	Clayton-Glassboro Water Co.
Clementon	Clementon Spring Water Co.
Clifton	Montclair Water Co. (see Little Falls)
Cliffside Park	Hackensack Water Co. (see New Milford)
Clinton	Clinton Water & Water Supply Co.
Closter	Hackensack Water Co. (see New Milford)
Collingwood	Merchantville Water Co. (see Merchantville)
Colonia	Middlesex Water Co. (see Rahway)
Columbus	Columbus Water Co.
Como	Borough of Spring Lake (see Spring Lake)
Corson's Inlet	Corson's Inlet Water Co.
Coytesville	Hackensack Water Co. (see New Milford)
Cranbury	Cranbury Water Co.
Cranford	Plainfield-Union Water Co. (see Netherwood)
Cresskill	Hackensack Water Co. (see New Milford)
Crosswicks	Crosswicks Water Co.
Deal	New Jersey Water & Light Co.
Deal Beach	New Jersey Water & Light Co. (see Deal)
Deal Boro	Tintern Manor Water Co. (see Long Branch)
Delair	Merchantville Water Co. (see Merchantville)
Delanco	Delaware River Water Co. (see Beverly)
Delawanna	Yantacaw Water Co.
Delford	Hackensack Water Co. (see New Milford)
Demarest	Hackensack Water Co. (see New Milford)
Dover	Town of Dover
Dumont	Hackensack Water Co. (see New Milford)
Dunellen	Watchung Water Co
East Newark	Montclair Water Co. (see Little Falls)
East Orange	City of East Orange
East Rutherford	Hackensack Water Co. (see New Milford)
East Summit	Commonwealth Water & Light Co. (see Summit)
Eatontown	Tintern Manor Water Co. (see Long Branch)
Edgewater	Hackensack Water Co. (see New Milford)
Edgewater Park	Delaware River Water Co. (see Beverly)
Egg Harbor City	Egg Harbor City Water Co.
Elberon	Tintern Manor Water Co. (see Long Branch)
Elizabeth	Elizabethtown Water Co.
Elmer	Elmer Water Co.
Emerson	Hackensack Water Co. (see New Milford)
Englewood	Hackensack Water Co. (see New Milford)
Englewood Cliffs	Hackensack Water Co. (see New Milford)
Essex Fells	Essex Fells Electric Light & Water Co.

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Springs.		
Wells.		10,000,000
Wells.		1,500,000–1,750,000
Wells.		1,097,000
Wells.		30,000
Wells.		10,000–40,000
Wells.		
Well.		
Wells.		150,000
Well and Spring.		40,000
Beaver Brook and Well.		100,000
Wells.		
Well.		8,500
Well.		15,000
Spring.		
Wells.		
Well.		11,000
Springs and Wells.	Dsinfection.	130,000
Wells.		225,000
Wells.		3,200,000
Wells.		150,000
Wells, Elizab'h & Rahway Rivers.	Filtration and disinfection.	14,000,000
Well.		
Wells.		150,000

TOWN.	SUPPLIED BY
Fair Haven	Tintern Manor Water Co. (see Long Branch)
Fairview	Hackensack Water Co (see New Milford)
Fanwood	Plainfield-Union Water Co. (see Netherwood)
Flemington	Flemington Water Co
Fords	Middlesex Water Co. (see Plainfield)
Fort Lee	Hackensack Water Co. (see New Milford)
Freehold	Town of Freehold
Frenchtown	Frenchtown Water Co
Garfield	Borough of Garfield
Garwood	Plainfield-Union Water Co. (see Netherwood)
German Valley	German Valley Water Co
German Valley	M. T. Welsh
Gibbsboro	John Lucas & Co
Gibbstown	E. I. du Pont de Nemours Powder Co.
Gladstone	Dr. M. C. Smalley
Glassboro	Clayton-Glassboro Water Co
Glen Gardner	Glen Gardner Water Co
Glen Lake	C. G. Justice
Glen Ridge	Orange Water Co
Glen Rock	Bergen Water Co. (see Midland Park)
Gloucester	Gloucester City
Grantwood	Hackensack Water Co. (see New Milford)
Grasselli	Elizabethtown Water Co. (see Elizabeth)
Grenloch	Bateman Manufacturing Co
Guttenburg	Hackensack Water Co. (see New Milford)
Hackensack	Hackensack Water Co. (see New Milford)
Hackettstown	Town of Hackettstown
Haddonfield	New Jersey Water Service Co
Haddonfield	Borough of Haddonfield
Haddon Heights	United Water Co
Haledon	Borough of Haledon
Hammonton	Town of Hammonton
Hampton	Junction Water Co
Hanover Township	Morris Aqueduct Co. (see Morristown)
Harrington Park	Hackensack Water Co. (see New Milford)
Harrison	Montclair Water Co. (see Little Falls)
Hasbrouck Heights	Hackensack Water Co. (see New Milford)
Haskell	E. I. du Pont de Nemours Powder Co.
Haworth	Hackensack Water Co. (see New Miford)
Haworth	Haworth Water & Light Co
Helmetta	Geo. W. Helm Co
High Bridge	Borough of High Bridge
Highlands	Borough of Highlands
Highland Park	City of New Brunswick (see New Brunswick)
Hightstown	Hightstown Water Dept
Highwood	Hackensack Water Co. (see New Milford)
Hillsdale	Hackensack Water Co. (see New Milford)
Hillsdale Manor	Hackensack Water Co. (see New Milford)
Hilton	Commonwealth Water & Light Co. (see Summit)
Hoboken	Hackensack Water Co. (see New Milford)
Hohokus	Bergen Water Co. (see Ridgewood)
Holly Beach	Wildwood Water Co.(see Wildwood)
Holly Beach	Holly Beach, Wildwood, N. Wildwood Water Co
Hopewell	Borough of Hopewell
Interlaken	Monmouth Water Co. (see Neptune Township)

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Well and Raritan River		200,000
Wells		400,000
Nishisakawik Creek		
Wells		300,000
Spring		
Springs		
Well		
Wells		
Spring		
Wells		100,000
Spring		
Well		1,100
Little Falls		
Wells	Filtration	1,500,000
Well		
Mine Hill & Morris Co. Reservoir	Filtration	
Springs and Well		350,000
Spring and Wells		110,000
N. J. Water Service Co.		125,000
Springs	Filtration	350,000
Wells		180,000
Rocky Run and Springs		100,000
Spring and Wells		300,000–400,000
Well		8,000
Wells		15,000
Springs & Willoughby Brook		100,000
Wells		100,000
Wells	Filtration	150,000
		29,000
Well		15,000
Wells		15,000

TOWN.	SUPPLIED BY
Irvington	Commonwealth Water & Light Co. (see Summit)
Island Heights	Island Heights Water, Pow, Gas & Sewer Co.
Ivy Hill	Commonwealth Water & Light Co. (see Summit)
Jamesburg	Jamesburg Water Co.
Jersey City	City of Jersey City
Junction	Junction Water Co. (see Hampton)
Kearny	Montclair Water Co. (see Little Falls)
Keasby	City of Perth Amboy (see Perth Amboy)
Kenilworth	New Orange Park, Water, Heat, Light & Power Co.
Keyport	Town of Keyport
Kingsland	Hackensack Water Co. (see New Milford)
Kirkwood	Lakeside Park Water Co.
Lakehurst	Lakehurst Sewer Co.
Lakeside Park (Mercer Co.)	Lakeside Park Land Co.
Lakewood	Lakewood Water Co.
Lambertville	Lambertville Water Co.
Laurel Springs	Laurel Springs Water Supply Co.
Lawrenceville	James Hullfish
Lawrence Township	C. F. Reed
Leonia	Hackensack Water Co. (see New Milford)
Lincoln	Watchung Water Co. (see Dunellen)
Linden	Elizabethtown Water Co. (see Elizabeth)
Lindenwold	New Jersey Water Service Co. (see Haddonfield)
Linwood	Pleasantville Water Co. (see Pleasantville)
Little Falls	Montclair Water Co.
Little Ferry	Hackensack Water Co. (see New Milford)
Little Silver	Tintern Manor Water Co. (see Long Branch)
Little York	Community Supply
Lodi	Hackensack Water Co. (see New Milford)
Lodi	Borough of Garfield (see Garfield)
Loch Arbour	Monmouth County Water Co. (see Neptune Township)
Logansville	Bernards Water Co. (see Bernardsville)
Long Branch	Tintern Manor Water Co. (see W. End & Middletown Twp.)
Longport	Borough of Longport
Lucaston	John Lucas & Co. (see Gibbsboro)
Lumberton	Lumberton Light, Water & Sewerage Co.
Lyndhurst	Hackensack Water Co.. (see New Milford)
Lyons Farm	Elizabethtown Water Co. (see Elizabeth)
Madison	Borough of Madison
Mahwah	Cragmere Water Co.
Mahwah	John Winters
Mahwah	Albert Winter
Manasquan	Borough of Manasquan
Mantoloking	Louis Downer
Mantua	Job Scott
Maple Shade	Maple Shade Water Co.
Maplewood	Commonwealth Water & Light Co. (see Summit)
Margate City	Margate City Water Department
Marion	City of Jersey City (see Jersey City)
Marlton	Marlton Water Co.
Matawan	Borough of Matawan
Mays Landing	Mays Landing City
Mays Landing	Mays Landing Water Power Co.
Maywood	Hackensack Water Co. (see New Milford)
Medford	Medford Water Co.

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
		570,000
Wells.		60,000–240,000
Wells.		75,000
Rockaway River.	Disinfection.	41,000,000
Well		2,500
Wells.	Filtration.	250,000
Well		
Well		10,000
Well		750,000
Wells.		
Brook.	Filtration.	300,000
Wells.		100,000
Wells.		10,000
Well		
Passaic River.	Filtration and disinfection	28,000,000
Wells.		120,000
Rancocas Creek.		10,000
Wells.		225,000
Well		21,000
Well		4,000
Spring.		
Wells.		40,000
Wells.		5,000–25,000
Wells.		12,000
Well	Filtration.	
		370,000
Well		4,500
Wells.	Filtration.	100,000
Wells.		50,000
Lake Lenape.		
Rancocas Creek.		

PUBLIC WATER SUPPLIES

TOWN.	SUPPLIED BY
Mendham	Borough of Mendham
Merchantville	Merchantville Water Co.
Metuchen	Middlesex Water Co. (see Plainfield)
Mickleton	August Eichler
Mickleton	Jeremiah Haines
Middletown Township	Tintern Manor Water Co.
Midland	Hackensack Water Co. (see New Milford)
Midland Park	Bergen Water Co. (see Ridgewood)
Milburn	Commonwealth Water & Light Co. (see Summit)
Milford	Mine Springs Water Co.
Millington	Millington Water Co.
Millville	Millville Water Co
Millville	People's Water Co.
Monmouth Beach	Tintern Manor Water Co. (see Long Branch)
Montclair	Montclair Water Co. (see Little Falls)
Moorestown	Moorestown Water Co.
Morristown	Morris Aqueduct Co.
Morris Township	Morris Aqueduct Co. (see Morristown)
Morris Plains	Morris Aqueduct Co. (see Morristown)
Morsemere	Hackensack Water Co. (see New Milford)
Mount Holly	Mount Holly Water Co.
Mountain Lakes	Hillcrest Water Co.
Mount Tabor	Camp Meeting Asso. of Newark Con. M. E.
Mullica Hill	Harrison Heights Improvement Co.
Murray Hill	Commonwealth Water & Light Co. (see Summit)
National Park	John B. Betts
Navesink Beach	Tintern Manor Water Co.
Neptune City	Monmouth County Water Co. (see Neptune Township)
Neptune Township	Monmouth County Water Co.
Netcong	Borough of Netcong
Netherwood	Plainfield-Union Water Co.
Newark	City of Newark
Newbold	Westville-Newbold Water Co. (see Westville)
New Brunswick	City of New Brunswick
New Durham	Hackensack Water Co. (see New Milford)
New Lisbon	Burlington County Water Co.
New Market	Watchung Water Co. (see Dunellen)
New Milford	Hackensack Water Co.
New Providence Borough	Commonwealth Water & Light Co. (see Summit)
New Providence Township	Commonwealth Water & Light Co. (see Summit)
Newton	Town of Newton
Nordhoff	Hackensack Water Co. (see New Milford)
Normandie	Tintern Manor Water Co. (see Long Branch)
Normandy Heights	Normandy Water Co.
North Arlington	City of Jersey City (see Jersey City)
North Bergen	Hackensack Water Co. (see New Milford)
Northfield	Pleasantville Water Co. (see Pleasantville)
North Hackensack	North Hackensack Water Co. (see New Milford)
North Plainfield	Plainfield-Union Water Co. (see Netherwood)
North Wildwood	Wildwood Water Works Co. (see Wildwood)
Norwood	Hackensack Water Co. (see New Milford)
Nutley	Montclair Water Co. (see Little Falls)
Oaklyn	New Jersey Water Service Co. (see Haddonfield)
Ocean City	Ocean City Water Co.
Ocean Gate	Great Eastern Building Corporation

SUPPLIES OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Springs and Brook		15,000
Wells	Filtration	800,000
		150,000
Well		
Well		500
Hop and Yellow Brooks	Filtration	9,500,000
		57,000
Well		6,000
Well		12,000
Union Lake	Filtration and disinfection	100,000
Wells	Filtration	230,000
Pensauken Creek	Filtration and disinfection	325,000
Springs and Wells		930,000
		15,000
Rancocas Creek	Filtration and disinfection	350,000
Springs		75,000–100,000
Wells		20,000
Well		
Jumping Brook and Well	Filtration	700,000
		3,500
Wells		4,500,000
Pequannock River		40,000,000
Lawrence Brook	Disinfection	3,500,000
Rancocas Creek		45,000
Hackensack River	Filtration and disinfection	25,000,000
Morris Lake		600,000
Wells		20,000–200,000

PUBLIC WATER SUPPLIES

TOWN.	SUPPLIED BY
Ocean Grove	Ocean Grove Camp Meeting Association
Oceanic	Tintern Manor Water Co. (see Long Branch)
Oceanport	Tintern Manor Water Co. (see Long Branch)
Ocean Township	Tintern Manor Water Co. (see Long Branch)
Oradell	Hackensack Water Co. (see New Milford)
Orange	City of Orange
Overbrook	Laurel Springs Water Co. (see Laurel Springs)
Overpeck	Hackensack Water Co. (see New Milford)
Oxford	Empire Steel & Iron Co.
Palisades Park	Hackensack Water Co. (see New Milford)
Palisades Township	Hackensack Water Co. (see New Milford)
Palmyra	Riverton Palmyra Water Co. (see Riverton)
Passaic	Montclair Co. (see Little Falls)
Passaic Township	Morris Aqueduct Co. (see Morristown)
Paterson	Montclair Water Co. (see Little Falls)
Paulsboro	Paulsboro Water Co.
Pedricktown	Pennsgrove Water Supply Co.
Pemberton	Pemberton Township Water, Sewerage & Light Co.
Pennington	Pennington Spring Water Co.
Pennsgrove	Pennsgrove Water Supply Co.
Pensauken	Merchantville Water Co. (see Merchantville)
Pensauken	J. N. Wilkins
Perth Amboy	City of Perth Amboy
Phillipsburg	Peoples Water Co.
Phillipsburg	Lopatcong Water Co.
Phillipsburg	Lehigh Water Co., Easton, Pa.
Piscataway Township	Bound Brook Water Co. (see Bound Brook)
Pitman	Pitman Water Co.
Pitman	N. J. Conference Camp Meeting Association
Plainfield	Middlesex Water Co.
Plainfield	Plainfield-Union Water Co. (see Netherwood)
Pleasantville	Pleasantville Water Co.
Pluckamin	Superior Yarn & Thread Co.
Point Pleasant	Point Pleasant Water Works Co.
Port Reading	Middlesex Water Co. (see Plainfield)
Princeton	Princeton Water Co.
Quinton	City of Salem
Rahway	City of Rahway
Rahway	Middlesex Water Co.
Raritan	Somerville Water Co.
Red Bank	Borough of Red Bank
Ridgefield	Hackensack Water Co. (see New Milford)
Ridgefield Park	Hackensack Water Co. (see New Milford)
Ridgewood	Bergen Water Co.
Riegelsville	Mrs. Lee S. Clymer (Riegelsville, Pa.)
River Edge	Hackensack Water Co. (see New Milford)
Riverside (Bergen Co.)	Hackensack Water Co. (see New Milford)
Riverside Township	Delaware River Water Co. (see Beverly)
Riverton	Riverton-Palmyra Water Co.
Rockaway	Borough of Rockaway
Roebling	John A. Roebling's Sons Co.
Roseland	Essex Fells Electric Light & Water Co. (see Essex Fells)
Roselle Borough	Plainfield-Union Water Co. (see Netherwood)
Roselle Park	Plainfield-Union Water Co. (see Netherwood)
Roosevelt	Middlesex Water Co. (see Plainfield and Rahway)

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Wells		250,000–1,000,000
Wells		5,000–10,000
Wells		600,000–1,000,000
Rahway River.		2,600,000
Springs.		
Wells.		
Rancocas Creek.		38,000
Wells and Springs.		20,000
Wells.	Filtration.	60,000
Wells.		4,000
Wells and Pond.		6,500,000
Delaware River.		1,300,000
Merrill Brook.		600,000
Delaware River.	Disinfection.	2,500,000
Well.		60,000
Wells and Pond.	Filtration.	1,200,000
Bargaintown Pond.		400,000–1,000,000
Wells.		40,000–250,000
Wells.		250,000
Wells and Pond.		700,000
Rahway River.	Filtration and disinfection.	2,500,000
Rahway River and Wells.	Filtration and disinfection.	6,000,000
Raritan River.	Filtration.	1,000,000
Wells.		300,000
Wells.	Disinfection.	900,000
Springs.		
Well.		400,000
Brook.		
Delaware River.	Filtration and disinfection.	130,000
		550,000

PUBLIC WATER SUPPLIES

TOWN.	SUPPLIED BY
Rumson Borough	Tintern Manor Water Co. (see Long Branch)
Rumson	Rumson Improvement Co.
Runyon	City of Perth Amboy (see Perth Amboy)
Rutherford	Hackensack Water Co. (see New Milford)
Salem	City of Salem (see Quinton)
Scotch Plains	Plainfield-Union Water Co. (see Netherwood)
Sea Bright	Tintern Manor Water Co. (see Long Branch)
Sea Girt	Sea Girt Water Co.
Sea Isle City	Sea Isle City Water Co.
Seaside Heights	Peninsular Water Co.
Seaside Park	Borough of Seaside Park
Secaucus	Hackensack Water Co. (see New Milford)
Sewaren	Middlesex Water Co. (see Plainfield)
Sewell	Sewell Water Co.
Short Hills	Short Hills Water Co.
Shrewsbury Township	Tintern Manor Water Co. (see Long Branch)
Smithville	H. B. Smith Machine Co.
Somerdale	(See Laurel Springs)
Somers Point	Pleasantville Water Co. (see Pleasantville)
Somerville	Somerville Water Co. (see Raritan)
South Amboy	City of Perth Amboy (see Perth Amboy)
South Cape May	City of Cape May (see Cape May)
South Englewood	(See New Milford)
South Orange	Commonwealth Water & Light Co. (see Summit)
South Orange Township	Commonwealth Water & Light Co. (see Summit)
South Plainfield	Middlesex Water Co. (see Plainfield)
South River	Borough of South River
Sparta	Dr. T. H. Andress
Sparta	David Fisher
Sparta	Robert M. Smith
Springfield	Short Hills Water Co. (see Short Hills)
Spring Lake	Borough of Spring Lake
Stirling	Stirling Water Supply Co.
Stockton	Borough of Stockton
Stone Harbor	Stone Harbor Water Co.
Stratford	Laurel Springs Water Supply Co. (see Laurel Springs)
Summit	Commonwealth Water & Light Co.
Surf City	Surf City Water Co
Sussex	Borough of Sussex
Swedesboro	Woolwich Water Co.
Teaneck	Hackensack Water Co. (see New Milford)
Tenafly	Hackensack Water Co. (see New Milford)
Toms River	Toms River Water Co.
Trenton	City of Trenton
Tuckerton	Tuckerton Water Co
Union (Bergen Co.)	Hackensack Water Co. (see New Milford)
Union (Union Co.)	Elizabethtown Water Co. (see Elizabeth)
Ventnor	City of Ventnor
Verona	Essex Fells Electric Light & Water Co. (see Essex Fells)
Vincentown	Vincentown Water Co.
Vineland	Borough of Vineland
Wallington	Borough of Wallington
Wanamassa	Monmouth County Water Co. (see Asbury Park)
Washington	Washington Water Co.
Weehawken	Hackensack Water Co. (see New Milford)

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Wells.	Filtration.	75,000
Well.		30,000–75,000
Well.		50,000–300,000
Well.		
Wells.		13,000
Wells.		
Wells.	Filtration.	20,000
Well.		5,000
Lake.		
		460,000
		57,000
Well.		
Spring.		
Spring.		
Glen Brook.		
Wells.		150,000
Wells.		100,000
Wells.		25,000
Well.		6,000–40,000
Wells.		2,500,000
Wells.		
Lake Rutherford.		100,000
Wells.		80,000
Wells.		150,000
Delaware River.	Disinfection.	18,000,000
Pohatcong Lake.		32,000
Wells.		
Rancocas Creek.		
Wells.		600,000
Wells and Spring.		140,000
Roaring Rock Brook.		

PUBLIC WATER SUPPLIES

TOWN.	SUPPLIED BY
Wenonah	Wenonah Water Co.
West Allenhurst	Monmouth County Water Co. (see Asbury Park)
West Avon	Monmouth County Water Co. (see Asbury Park)
West Cape May	City of Cape May (see Cape May)
West End	Tintern Manor Water Co.
Westfield	Plainfield-Union Water Co. (see Netherwood)
West Hoboken	Hackensack Water Co. (see New Milford)
Westmont	Merchantville Water Co. (see Merchantville)
West New York	Hackensack Water Co. (see New Milford)
West Orange	Montclair Water Co. (see Little Falls)
West Point Pleasant	Point Pleasant Water Works Co. (see Point Pleasant)
Westville	Westville-Newbold Water Co.
Westwood	Hackensack Water Co. (see New Milford)
Wharton	Borough of Wharton
White Horse	W. N. McGalliard
Whitesville	Monmouth County Water Co. (see Asbury Park)
Wildwood	Wildwood Water Works Co.
Wildwood Crest	Wildwood Water Works Co. (see Wildwood)
Williamstown	Monroe Water Co.
Williamstown	C. D. Tice & Son
Woodbine	Woodbine Land & Improvement Co.
Woodbridge	Middlesex Water Co. (see Plainfield)
Woodbridge Township	City of Perth Amboy (see Perth Amboy)
Woodbury	City of Woodbury
Woodbury Heights	City of Woodbury (see Woodbury)
Woodlynne	Merchantville Water Co. (see Merchantville)
Woodridge	Hackensack Water Co. (see New Milford)
Woodstown	City of Woodstown
Wortendyke	Bergen Water Co. (see Ridgewood)
Wrightstown	Wrightstown Water, Electric Light& Sewer Co.
Wyoming	Commonwealth Water & Light Co. (see Summit)
Yardville Heights	C. A. Comp

OF NEW JERSEY.

SOURCE.	TREATMENT.	APPROXIMATE DAILY CONSUMPTION IN GALLONS.
Wells.		40,000
Whale Brook.	Filtration.	3,000,000
Wells.		50,000
Well.		
Wells.		13,900,000
Wells.		30,000
Wells.		
Wells.		110,000
		300,000
Mantua Creek.	Disinfection.	600,000–700,000
Wells.		90,000
Well.		10,000
		57,000
Spring.		

TABLE 79.

LIST OF BOTTLED WATERS SOLD IN NEW JERSEY.

Brand or Proprietor.	*Location.*	*Source of Supply*
Alpha Spring Water	Springfield	Spring
Artic Spring Water	Trenton Junction	Driven well
Art-dist-pure Water	Salem	Driven wells, distilled
Artois Table Water	Hopewell	Driven well
Belmar Spring Water	Glen Rock	Spring
The W. Bender Co.	Jersey City	Driven well, distilled
Blue Mt. Spring Water	Johnsonville, Pa.	Frozen spring water
W. S. Buchanan	Raritan Township	Spring
Century Spring Water	New Brunswick	Spring
Cold Indian Spring Water	Asbury Park	Spring
Crystal Spring Water	Hamilton Township	Springs
Culm Rock Spring Water	Pluckemin	Spring
Echo Spring Water	Ewingville	Spring
Englewood Hygeia Water	Englewood	Driven well, distilled
Henry A. Fry & Co.	Gloucester	Driven well
Great Bear Spring Water	Fulton, New York	Springs
Great Notch Spring Water	Great Notch	Spring
Great Rock Spring Water	Whippany	Spring
Grey Rock Artesian Water	Ewing Township	Driven well
J. Schenck Hart	Lawrence Township	Spring
Indian Lady Hill Spring Water	Asbury Park	Spring
Indian Spring Water	Rockaway	Spring
Ironrock Mineral Spring Water	Maple Shade	Springs
Kalium Spring Water	Collingswood	Spring
Kanouse Spring Water	Oakland	Spring
Keystone Spring Water	Bucks County, Pa.	Driven well
J. Clifton Lambert	Lambertville	Spring
William J. Lawyer	Trenton Junction	Springs
Mountainside Spring Water	Livingston	Spring
Paradise Spring Water	Boonton	Spring
A. G. Phillips	Ralston	Spring
William A. Phillips	New Brunswick	Spring
Pilgrim Spring Water	Ridgefield Park	Spring
Polar Spring Water	Morrisville, Pa.	Spring
William S. Potter	Hamilton Township	Dug well
Purity Water	Mercerville	Driven well
Purock Water	Philadelphia, Pa.	City water, distilled
Red Rock Spring Water	Midland Township	Driven well
Rock Spring Water	West Orange	Spring
Salem Spring Water	Dover	Driven well, distilled
Somerset Spring Water	Somerset County	Spring
Trinity Spring Water	Ridgefield	Spring
Washington Rock Spring Water	Plainfield	Spring
Watchung Spring Water	Plainfield	Springs

SEWERAGE.

At the close of the present fiscal year there were in the State of New Jersey 130 sewage disposal plants in active operation. Table I. gives a classification of these plants. An examination of this table will show that there are 21 general types of disposal plants in operation. This, however, is only a very rough classification; for, with the exception of the plants for plain "sedimentation without any subsequent treatment," there are no two plants in the State that are alike in construction and operation. Table II. shows the number and location of the sewage disposal plants that are situated within watersheds.

TABLE 80.

TABLE SHOWING NUMBER AND NATURE OF SEWAGE DISPOSAL PLANTS IN OPERATION IN THE STATE OF NEW JERSEY ON OCTOBER 31, 1913.

Type of Plant.	*No. in Operation.*
1. Sedimentation without any subsequent treatment	35
2. Sedimentation with disinfection	16
3. Sedimentation with filtration through sand	16
4. Sedimentation with sub-surface irrigation or ground absorption	12
5. Sedimentation with land filtration or broad irrigation	11
6. Sedimentation with single contact treatment and filtration through sand	10
7. Sedimentation with single contact treatment	3
8. Sedimentation with trickling filters	3
9. Sedimentation with trickling filters and filtration through sand	2
10. Sedimentation with double contact treatment and filtration through sand	2
11. Sedimentation with sprinkling filters and filtration through sand	2
12. Sedimentation with single contact treatment and disinfection	2
13. Sedimentation with double contact treatment	1
14. Sedimentation with single contact treatment and trickling filters	1
15. Sedimentation with sprinkling filters and cinder straining	1
16. Sedimentation with single contact treatment and land filtration	1
17. Filtration through natural sand beds with disinfection	1
18. Screening with filtration through sand	1
19. Chemical precipitation with sedimentation and cinder straining	1
20. Broad irrigation without preliminary sedimentation	1
21. Plants for the treatment of creamery wastes	8
Total number of plants in operation October 31, 1913	130

TABLE 81.

TABLE SHOWING NUMBER AND LOCATION OF SEWAGE DISPOSAL PLANTS IN THE STATE OF NEW JERSEY THAT ARE SITUATED WITHIN WATERSHEDS, OCTOBER 31, 1913.

Location of Disposal Plants.	*Plant is Located in Watershed of*
1. Montague, (Rock Spring Creamery Company)	Belvidere Water Company, Belvidere.
2. Newton, (Clinton Street plant)	Trenton.
3. Newton, (Sparta Street plant).	"
4. Washington	"
5. Changewater, (Hopatcong Woolen Mills)	"
6. Glen Gardner, N. J. Sanatorium for tuberculous diseases)....	Somerville Water Company, Rariton.
7. Clinton, (Lehigh Valley Railroad Creamery)	" " " "
8. Flemington	" " " "
9. Three Bridges, (Lehigh Valley Railroad Creamery)	" " " "
10. Neshanic, (Lehigh Valley Railroad Creamery)	" " " "
11. Ralston, (St. Margaret's Home)	" " " "
12. Mahwah, (American Brake Shoe and Foundry Company)	Montclair Water Company, Little Falls.
13. Morris Plains, (N. J. Hospital for the Insane)	" " " " "
14. Morris Plains, (N. J. Hospital for the Insane)	" " " " "
15. Morristown	" " " " "
16. Chatham—Chatham Madison disposal plant	" " " " "
17. Essex Fells	" " " " "
18. Caldwell, (Essex County Penitentiary)	" " " " "
19. Colt's Neck, (Colt's Neck Creamery Company)	Newman Springs plant of the Tintern Manor Water Company at Long Branch.
20. Trenton, (Pennsylvania Railroad shops)	Burlington.
21. Trenton, (DeLaval Steam Turbine Company)	"
22. Trenton, (I. O. O. F. Home) ...	"
23. Trenton, (Agasote Millboard Company)	"
24. Bordentown	"
25. Roebling	"
26. Lawrenceville, (Lawrenceville Preparatory School)	"
27. Smithville, (H. B. Smith Machine Company)	Mount Holly Water Company, Mt. Holly.
28. Pemberton	" " " " " "
29. New Lisbon, (Burlington County Asylum for the Insane)	Pemberton Township Water, Sewerage and Light Company, Pemberton.

TABLE 81.—Continued.

Location of Disposal Plant.	*Plant is Located in Watershed of*
30. New Lisbon, (Burlington County Almshouse)	Pemberton Township Water, Sewerage and Light Company, Pemberton.
31. Brown's Mills	Burlington County Water Company, New Lisbon.
32. Medford	Lumberton Light, Water and Sewage Company, Lumberton.
33. Asyla, (Camden County institutions)	Blackwood Water Company, Blackwood.
34. Grenloch, (Bateman Manufacturing Company)	Blackwood Water Company, Blackwood.
35. Vineland	Millville Water Campany, Millville.

During the past fiscal year there have been made 384 inspections of sewage disposal plants. These inspections were for the purpose of supervising operation, all additions and structural changes being covered by the Engineering Department.

The experiences of the past year and the difficulties encountered in the field have served to further demonstrate the need of frequent expert supervision of the operation of sewage disposal plants. It is unfortunate that the majority of the men in charge of disposal plants do not have enough knowledge or pride in the plants under their charge to keep them in proper condition. Very frequently it is found that an attendant will permit his plant to run on with the least possible amount of labor, and by such men our assistants find themselves regarded more as policemen coming around to censure and complain, than as cooperators ready and willing to advise and help. This attitude is also noticeable among a few municipal officials. It is worthy of mention, however, that this attitude is rapidly growing less prevalent and that a spirit of cooperation and appreciation is beginning to manifest itself.

The experiences of the past year have also served to demonstrate further the desirabilty of having sewage disposal plant attendants registered or licensed by the State Board of Health. If such a license was necessary it would prevent much of the trouble now encountered, due to attendants who are absolutely ignorant of the fundamental principles of sewage disposal. The need of intelligent attendants is particularly necessary in disposal plants fitted with complicated dosing or alternating devices. Such arrangements at best require the attention of a careful and capable man, and much of our trouble in the field is due either to the improper construction of the dosing device or to the fact that the attendant fails to understand or comprehend the mechanical contrivances and their operation. It might be well at this time to state that too much reliance should not be placed on these automatic alternating and dosing devices, for they easily get out of order, and when out of order usually require the services of some one thoroughly familiar with their construction and operation.

During the past year, eleven new sewage disposal plants have been placed in operation in this State. They are located at Beach Haven, Beverly, Grenloch, (Bateman Manufacturing Company), Metuchen, (Dairy of D. S. Ginna), Neptune Township, two plants at Woodbridge, Sewell's Point, (Cape May Real Estate Company), two plants at Longport, and Trenton, (Agasote Millboard Company). Description of these plants will be found in the report of the Engineering Department.

A great deal of trouble is frequently experienced with new plants shortly after they are first placed in operation, owing to the fact that the Designing Engineer, upon the completion of the plant, leaves without giving any operating instructions, and gives the subsequent conduct of the plant little if any attention. It would be well if the engineer could be required to supervise the operation of the plant for a period of one year after its completion. This would result in the plant being run as intended, and defects in design would be avoided in subsequent plans.

A detailed report on the sewage disposal plants in operation October 31, 1913, prepared by Mr. William J. Orchard, Field Assistant, here follows:

DETAILED REPORT OF THE SEWAGE DISPOSAL PLANTS IN THE STATE OF NEW JERSEY IN OPERATION OCTOBER 31, 1913.

ALDENE: Watson-Stillman Company. A description of this plant will be found in the State Board of Health Report for 1911 on Page 315. An inspection of the plant was made on July 11, 1913, and the plant was found to be in a satisfactory condition giving a clear effluent free from odor.

ALLENHURST: A description of the Sedimentation Tank and Sea Outfall at Allenhurst may be found in the State Board of Health Report for 1911 on Page 315. An inspection was made on March 18, 1913, and it was found that the annual cleaning had started the previous day. One portion of the tank is cleaned at a time, the flushing being accomplished by two streams of fire hose with iron nozzles attached. The flushing is carried on in each section of the tank for three days consecutively, and apapparently is very effective. At a subsequent inspection on July 18, 1913, the effluent from the tank was found to be reasonably clean and there was no indication of any offensive odors.

ASBURY PARK: The Pumping Plant, Sedimentation Tanks and Sea Outfall pipes used for the disposal of the sewage of Asbury Park are described in the State Board of Health Report for 1909 on Page 227. Inspections were made on March 18, 1913, April 29, July 18, August 12 and September 1, 1913. During the first part of the year a new ten inch centrifugal pump driven by a 25 Horse Power Electric Motor was installed and during the summer months proved to be a valuable addition to the equipment. In the spring the tanks were given a thorough cleaning and flushing for the first time since they were constructed. In the early part of August the main sea outfall pipe either became clogged or broke and at times of high tide the sewage in the tanks backed up and overflowed into the street. As soon as possible a ten inch cast iron pipe was attached to the discharge of the new pump, heretofore mentioned, and at times of high water, raw sewage was pumped through the pipe and discharged below the low water mark. The defective pipe will be repaired, or a new outfall pipe laid, during the coming winter months.

ASBURY PARK: Ross Fenton Farm.—The Sedimentation Tank, Siphon Chamber and Underground Cinder Filter comprising the sewage disposal plant of the Ross-Fenton Farm at Asbury Park is described in the State Board of Health Report for 1911 on Page 315. An inspection of the plant on August 15, 1913, showed it to be apparently in a satisfactory condition.

ASYLA: Camden County Institutions.—A description of the disposal plant serving the Camden County Almshouse and Insane Asylum at Asyla may be found in the State Board of Health Report for 1909 on Page 228. The plant consists of Screens, Sedimentation Tanks, Dosing Chambers and Trickling Filters. This plant is usually found in an unsatisfactory condition, due in part to the lack of proper attention and in part to faulty design and overloading. An inspection was made on November 18, 1913, and the final effluent was very cloudy. On July 11, 1913, the effluent was somewhat clearer, but a putrescibility sample decolorized methylene blue in six days. It will undoubtedly be necessary for the Camden County authorities to rebuild or remodel this plant in the near future.

ATLANTIC CITY: A description of the old plant of the Atlantic City Sewerage Company at Raleigh Avenue, for disinfecting a portion of the sewage of Atlantic City, may be found in the State Board of Health Report for 1911 on Page 316. In response to various complaints received at this office in connection with this plant an extended investigation was made on April 10th and April 22, 1913. Very unsatisfactory conditions were found to exist both as regard disinfection and the removal of solids and a very obvious nuisance was created in the thoroughfare at the point of discharge. Recommendations were made to the Board following these investigations, and the Board on May 20, 1913, ordered the Atlantic City Sewerage Company to take immediate steps to abate the nuisance caused by the plant and to put some temporary system for the removal of the nuisance in operation by July 1, 1913. The Sewerage Company at once started to make temporary improvements and made changes in the plant which are described in the current report of the Engineering Department. Further inspections were made on June 13, and July 16, 1913, and it was found that while the changes in the plant were being made the sewage was by-passed directly into the thoroughfare without any treatment whatsoever.

AVON: A description of the Sedimentation Tank at Avon may be found in the State Board of Health Report for 1909 on Page 229. An inspection was made on September 3, 1913, and the tank was found to be practically filled with solids, not having been cleaned since March, 1912. The local authorities were accordingly notified that it would be necessary to clean the tank during the coming winter months.

AVON: Kling's Boat House.—The small Sedimentation Tank connected with Kling's Boat House at Avon was visited on September 3, 1913. The surrounding water makes an examination of this tank difficult; but, at the inspection made, it was apparently in a satisfactory condition.

BEACH HAVEN: A description of the new sewage disposal plant at Beach Haven consisting of Ejectors, Pump Wells and Sedimentation Tanks may be found in the current report of the Engineering Department. An investigation was made on August 29, 1913, and the effluent was found to be quite free from suspended solids but a trifle over septic. Three sections of the tank were in use and the fourth section was standing idle. The attendant was instructed regarding the proper operation of the plant and the alternation of sections. In all probability only three sections will be needed to take care of the flow at the height of the summer season.

BELMAR: A description of the Sedimentation Tank at Belmar may be found in the State Board of Health Report for 1911 on Page 317. Numerous complaints had been received at this office of objectionable odors in the vicinity of the plant and an investigation made on November 6, 1912, showed the Outfall Pipe to be in a leaky condition allowing some sewage to discharge within 30 feet of the low water mark. Undoubtedly the odors complained of were due, in great measure, to the faulty outfall pipe. An inspection on March 3, 1913, showed the tank to be in a satisfactory condition but the outfall pipe had not been repaired. A new 1,000 foot steel flexible joint outfall pipe was laid early in the summer. A description of this outfall pipe may be found in the current report of the Engineering Department. The tank at Belmar is well taken care of and is flushed out at frequent intervals.

BEVERLY: A description of the new Sewage Disposal Plant at Beverly, consisting of Sedimentation Tanks and Disinfecting Apparatus may be found in the current report of the Engineering Department. Inspections were made on January 10 and 14, 1913, and it was found that the plant was practically completed. On April 2, it was found that, with the exception of an underwear factory, no connections had been made to the sewer system and that the disinfection of the sewage had not been started. On August 22, 1913, an investigation showed that several connections had been made and that the disinfecting apparatus was working. An examination showed, however, that only one section of the tank was in use, and that the hypochlorite solution that was running from the dosing tanks was not being applied to the sewage but was being stored in the dosing chambers and, in effect, was running to waste. A further examination was made on September 18, 1913, and instructions were given to the attendant respecting the proper operation of the plant.

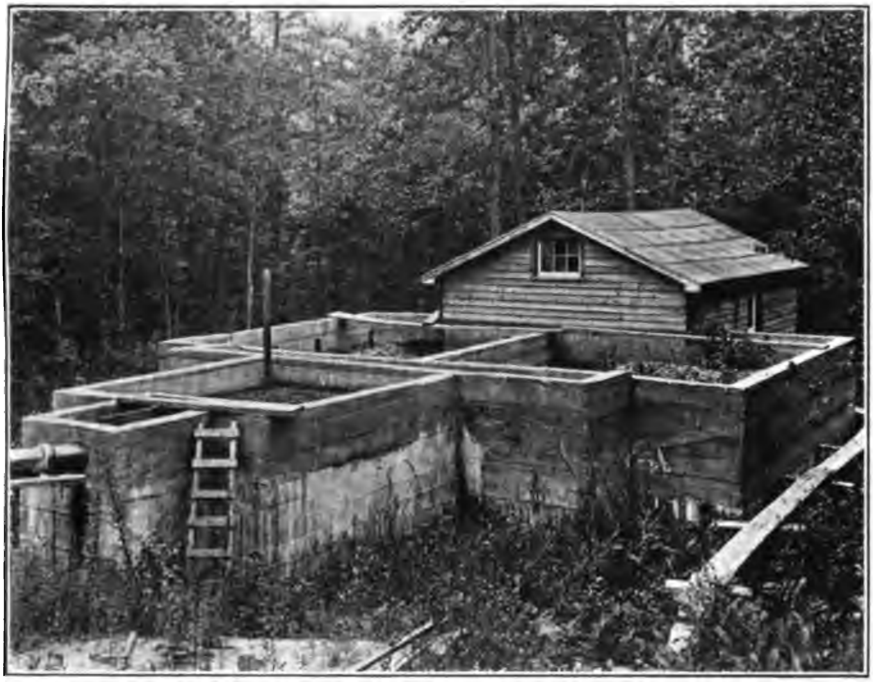
BORDENTOWN: A description of the Sewage Disposal Plant at Bordentown, consisting of Screen Chamber, Sedimentation Tanks, Primary and Secondary Contact Beds, Secondary Sedimentation Basin, Sand Beds and Sludge Bed, may be found in the State Board of Health Report for 1910 on Page 363. This plant has received a great deal of attention from this Department during the past year and the experience gained has clearly shown the need of continuous expert supervision on the part of the State Board of Health. Events have also happened to demonstrate the need of constant and intelligent work on the part of the attendant. The plant was visited on November 18, 1912, and was in a satisfactory condition, turning out a clean and non-putrescible effluent. On January 15, 1913, the plant was in good condition and receiving careful attention. On February 20, 1913, the dosing siphons controlling the flow into primary contact beds No. 1 and No. 4 were both open and the discharge siphon on bed No. 1 was also open, allowing no retention of sewage in that bed. On March 8, 1913, the operation of the plant in all its features was satisfactory. In May and June several visits were made to the plant in order to test out a machine that had been constructed by members of the Department, for recording the depth of liquid flowing over a weir. For this purpose visits were made on May 2, 10, 15, 16, 19, 20, 23, 24, 26 and 29, June 2, 9, 16 and 23. A 12-inch weir was constructed in the channel leading from the sedimentation tanks to the dosing house for the primary contact beds. The operation of the machine was very satisfactory giving a record from which the average daily flow was found to be close to 300,000 gallons. At all of these visits the operation of the plant was very carefully noted and with the exception of an occasional derangement of a dosing or discharging siphon the operation was satisfactory. During the early part of the summer, however, the voters of

Bordentown adopted the Commission Form of city government; and the commissioners, with a view to economy, tried to have the man, who had formerly devoted his entire time to the sewer system and sewage disposal plant, also attend to various other branches of the municipal public works. As a result of this the attendant, whose work up to this time had always been satisfactory, was unable to devote enough time to the sewage disposal plant to keep it in a proper condition, for on July 28, 1913, an investigation showed the plant to be very much neglected. The dosing siphons were out of order, the contact beds in places were covered with weeds, the sand beds were all covered with a heavy growth of grass and had large holes washed out of their surfaces. The effluent from the secondary contact beds was being by-passed from the secondary sedimentation basin into the creek without any sand treatment. On August 25, 1913, the plant was found to be in even worse condition and a putrescibility sample of the final effluent decolorized methylene blue in two days. In addition to this, 64 feet of the overflow weir wall in the easterly section of the secondary sedimentation basin had collapsed, making this portion of the plant inoperative. These matters were called to the attention of the local authorities and they were notified that the sewage disposal plant required the constant and continual attention of one man. About this time the former attendant resigned and a temporary man was appointed in his place. This attendant was instructed in the operation of the plant by representatives of this Division. For this purpose visits were made on September 4, 5, 8, 12 and 18, and October 3, 7, 14 and 20. The secondary siphons and sand beds were all overhauled and the attendant given detailed instructions in regard to the operation of the plant and what to do in case of emergency. At the close of the fiscal year the plant was working satisfactorily and apparently the plant will be in good condition again in the near future. During the past year new pumps were installed in the sewage pumping station on Park Street. The pumps, which are 4″ centrifugal driven by electric motors, were started May 16, 1913, and all sewage which formerly ran into Thornton Creek is now pumped to the disposal plant. Other municipalities would do well to profit by the experience of Bordentown and recognize the fact that sewage disposal plants, especially those fitted with automatic dosing devices, require the constant supervision of an intelligent and competent attendant.

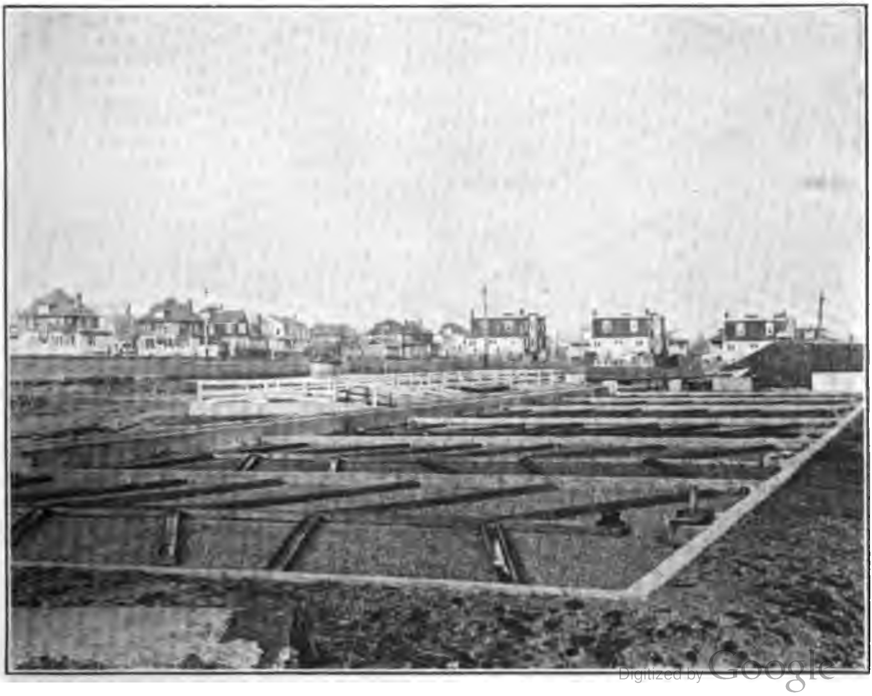
BRADLEY BEACH: The Sedimentation Tank serving the northerly portion of Bradley Beach is described in the State Board of Health Report for 1911 on Page 317. A description of the new tank serving the southerly portion of the Borough may be found in the State Board of Health Report for 1912 on Page 324. Both tanks were visited on September 3, 1913, and were reported to be in a satisfactory condition.

BRIDGETON: A description of the two sewage Sedimentation and Hypochlorite Disinfection Plants at Bridgeton may be found in the State Board of Health Report for 1911 on Page 317. An inspection was made on November 21, 1912, and the plants were found to be operating in a fairly satisfactory manner, the application of the hypochlorite being at a uniform rate. On December 14, 1912, conditions found were not nearly as satisfactory and the application of the disinfectant was very irregular. Investigation showed that the valves connected with the ball cocks in the constant head dosing tanks had been practically eaten away by the action of the bleach. On December 18, 1912, it was found that the valves had been repaired and the hypochlorite solution was being applied at an even rate. It was noted, however, that at both the Glass Street Plant and the Lincoln Street Plant the fumes from the hypochlorite were having a corrosive action on the machinery. The gas engines, air compressors, electric motors and piping all showed the effects of corrosion. Accordingly the Board notified the authorities of the City of Bridgeton to store and mix the hypochlorite in a room separate from the machinery. On June 9, 1912, it was found that the hypochlorite solution was being applied in accordance with the directions given by this Division. Subsequent to this visit a new brick pumping house has been constructed to house the machinery at the Glass Street Plant. There are still several lines of sewers which flow directly into Cohansey Creek without flowing to the disposal plants. Steps have been taken by the Board to hasten the connections of these lines of sewers with the disposal plants. From figures available at this office, some of which have been furnished by the Bridgeton Commissioner of Public Works, it is estimated that the average daily flow at the Glass Street Plant is 200,000 gallons to which available chlorine is added at the rate of 12.5 parts per million. At the Lincoln Street Plant it is estimated that the average flow is 90,000 gallons per day and that the disinfectant is added at the rate of 10 parts of available chlorine per million.

BROWN'S-MILLS-IN-THE-PINES: A description of the Sewage Disposal Plant at Brown's-Mills-in- the-Pines, consisting of Sedimentation Tank, Siphon Chambers, Contact Beds and Disinfection Chamber may be found in the State Board of Health Report for 1912 on Page 325. Conditions at this plant during the past year have not been satisfactory. The plant was visited on February 18, 1913, and it was found that the contact beds were not operating and that no disinfectant was being added to the septic effluent. A putrescibility sample collected decolorized methylene blue in less than three days. The Board accordingly ordered the persons in charge of the plant to put it in better condition at once. An investigation on July 23, 1913, showed the same conditions to exist although some hypochlorite was being added to the settled sewage. At that time the attendant was instructed in detail regarding the application of the disinfectant and the operation of the contact beds. On the 19th of August conditions were still found to be unsatisfactory although the disinfectant was being applied with some regularity. Instructions were given regarding the operation and also in regard to the installation of a sludge bed. The local authorities agreed to com-



BROWN'S MILLS: Sewage Disposal Plant.



COLLINGSWOOD: Sewage Disposal Plant.

ply with the instructions and promised to forward plans for a sludge bed to this office the following week. Up to the close of the fiscal year, however, no plans have been received.

BURLINGTON: The Sewage Disposal Plant of the Burlington Sewerage Company, which serves the city of Burlington and which consists of Pump Well, Pumps, Settling Tank and Land Filters is described in the State Board of Health Report for 1909 on Page 230. Inspections were made January 14, February 27, May 2, June 16 and 26, August 22 and September 10, 1913. During the spring and early part of the summer the offensive conditions of the past few years continued to exist, large quantities of sewage being ponded at the lower ends of the land filters. During August, however, changes were made in Bed No. 4 in accordance with recommendations repeatedly made by this Department. The upper portion of the bed was plowed and harrowed and three lines of underdrains were carried 150 feet further up the slope. The results were so satisfactory, that the other beds are being changed in a like manner. Putrescibility samples have stood up on the average for eleven days, the minimum being six days and the maximum in excess of fourteen days.

BURLINGTON: Thomas Devlin Manufacturing Company.—A description of the plant serving the Thomas Devlin Manufacturing Company at Burlington, consisting of Pump Well, Pumps, Sedimentation Tanks, Siphon Chamber, Sprinkling Filter Settling Tank, Sand Beds and Sludge Bed may be found in the State Board of Health Report for 1909 on Page 231. Inspections were made on January 14, February 27, and August 22, 1913, and on the whole the plant was found to be in a fairly satisfactory condition giving out a clear and non-putrescible effluent. During the past year a new sludge bed has been constructed, a description of which may be found in the current report of the Engineering Department.

CALDWELL: Essex County Penitentiary.—The Sewage Disposal Plant of the Essex County Penitentiary at Caldwell, which consists of a Sedimentation tank and a ground absorption system is described in The State Board of Health Report for 1909 on Page 231. Inspections were made on May 17, and July 7, 1913, and it was found that after a heavy rain some of the sewage soaked through the ground and, entering an old culvert, flowed into a small brook which is a tributary of the Passaic River. The Essex County authorities were accordingly ordered to abate this pollution. No steps have been taken to do this. A sewerage system is now being constructed in Caldwell and upon its completion it is planned to connect the Penitentiary buildings with this system and to abandon the existing disposal plant.

CAPE MAY CITY: The Pumping Station and Pump Well for the sewage of Cape May City were visited on September 23, 1913, and were found to be in a satisfactory condition.

CAPE MAY REAL ESTATE COMPANY: A description of the new plant for disposing of the sewage from an Amusement Park at Sewell's Point may be found in the current report of the Engineering Department. A visit made on September 23, 1913, showed the plant to be inoperative owing to the Amusement Park shutting down.

CARLSTADT: A description of the Sewage Sedimentation Tank at Carlstadt may be found in the State Board of Health Report for 1910 on Page 363. An inspection made on March 13, 1913, showed that the tank needed cleaning at once. A reinspection made on May 15, showed that one portion of the tank had been cleaned, the removed sludge being dumped on the marsh.

CHANGEWATER: Hopatcong Woolen Mills.—A description of the small Sewage Disposal Plant connected with the Hopatcong Woolen Mills at Changewater, comprising a Sedimentation

Tank and Sand Filter may be found in the State Board of Health Report for 1910 on Page 364. An inspection made on October 25, 1913, found the plant to be in an unsatisfactory condition owing to the ponding of sewage on the sand bed.

CHATHAM: Madison.—A description of the joint Sewage Disposal Plant serving the Boroughs of Chatham and Madison may be found in the State Board of Health Report for 1912 on Page 327. The experience of this Division during the past year with the plant at Chatham has demonstrated, that at times of dry weather and low run off the plant operates in an entirely satisfactory manner. The Passaic River, however, into which the effluent is discharged, is subject to rapid fluctuations. A heavy rainfall of only a few hours duration will cause the river to rise above the level of the underdrains and an extended precipitation of any considerable magnitude causes the river to rise to such a level that the effective head of the sand beds is materially reduced. Coupled with this condition there is a very great deal of infiltration into the sewer system. At times of heavy precipitation the flow increased to such an extent that the sedimentation basins and contact beds cannot properly take care of the incoming sewage and it is necessary to run the incoming sewage through the contact beds without detention. These facts lead to the conclusion that at times of heavy precipitation the flow is too large for the preliminary portions of the treatment to handle and that, at such times, the river is at such a level that the sand beds become ponded and afford little if any purification. Inspections were made on November 4, 9, 18, and 27, December 2, 12, 23, 28, and 31, 1912, and in January 2, 8, 9, 17, 23, 29, and 31, February 28, March 15, April 16, September 26, October 17 and 26, 1913. During the past year the roof on the low level Imhoff tank has been removed and the operation of this unit is materially improved. New concrete troughs have been placed in all of the sand beds and under normal conditions distribute the sewage very satisfactorily.

CLINTON: Lehigh Valley Creamery.—The plant for the treatment of wastes from the Lehigh Valley Creamery at Clinton is described in the State Board of Health Report for 1911 on Page 319. An investigation was made on September 17, 1913, and it was found that the use of lime had been discontinued, and that both tanks were filled with solids.

COLLINGSWOOD: A description of the Sewage Disposal Plant of the Collingswood Sewerage Company at West Collingswood may be found in the State Board of Health Report for 1911 on Page 319. Inspections were made on November 5 and 29, 1912, January 16 and 28, February 14, June 10, July 25, August 28, September 11, and October 8. This plant as a rule runs as well as could be expected. The final effluent is usually cloudy and putrescible, the average period for decolorizing methylene blue being five days. The minimum time for decolorization has been less than one day and the maximum time in excess of fourteen days. Early in the summer one of the walls in the sedimentation tank collapsed during cleaning and the tank had to be rebuilt. A description of this new tank will be found in the current report of the Engineering Department. During the reconstruction raw sewage was by-passed directly to the creek. The new tank was found to be operating satisfactorily at the September inspection.

COLTS NECK: The plant for treating the wastes from the Colts Neck Creamery has been described in the State Board of Health Report for 1911 on Page 320. An inspection made on September 8, 1913, showed that the plant was in a satisfactory condition.

CRESSKILL: A description of the Sedimentation Tank of the Cresskill Slope Sewerage Company at Cresskill may be found in the State Board of Health Report for 1911 on Page 320. An inspection was made on September 4, 1913, and it was found that one of the sections of the tank was entirely filled with solids. The company was advised to clean the tank as soon as possible.

DEAL BEACH: A description of the Sedimentation Tank and Sea Outfall for disposing of the sewage of the Borough of Deal Beach may be found in the State Board of Health Report for 1909 on Page 232. The tank was inspected on July 18, 1913, and the discharged effluent was satisfactory. The tank was last cleaned in November 1912.

DEAL BEACH: Deal Golf Club.—A description of the Sedimentation basin dosing chamber and sand filters for disposing of the sewage from the Deal Golf Club may be found in the State Board of Health Report for 1911 on Page 320. The plant was visited on July 18, 1913, and it was found that the dose was not applied intermittently and that the sand beds were in poor condition. After calling the matter to the attention of the manager he reported that the plant had been overhauled and put into better shape.

DELFORD: A description of the Sedimentation Tank at New Milford which serves a portion of the Borough of Delford will be found in the State Board of Health Report for 1909 on Page 232. An inspection was made on September 4, 1913, and the tank was found to be in need of cleaning.

EAST RUTHERFORD: A description of the two chambered Sedimentation tank at East Rutherford may be found in the State Board of Health Report for 1910 on Page 364. In response to a request from the local Superintendent of Public Works a representative of this Department visited the tank on March 6, 1913, and advised that the tank be cleaned. Inspection showed that the tank contained a very great deal of quicksand, which had apparently sweeped through the joints of a trunk sewer running through that material. Subsequent inspections were made on March 13, April 4 and May 15, 1913, and at the last visit the cleaning was found to be completed.

ENGLEWOOD: A description of the Imhoff Tanks of the Englewood Sewerage Company at Nordhoff may be found in the State Board of Health Report for 1912 on Page 330. Inspections were made on January 23 and May 29, 1913, and apparently the removal of solids was satisfactory.

ESSEX FALLS: A description of the Sewage Disposal Plant at Essex Falls, consisting of a sedimentation tank, dosing chambers, contact beds, gravel beds and sand filters may be found in the State Board of Health Reports for 1909 and 1910 on Pages 233 and 364 respectively. The effluent from this plant is uniformly clear and non-putrescible. The sedimentation tank, however, is practically filled with solids and should be cleaned. The siphons controlling the flow to the contact beds are not reliable and, owing to the construction of these beds, they act merely as strainers. The sand beds are frequently found dirty and covered with leaves and scum. Inspections were made on January 18, July 7, August 1, and October 6, 1913.

FLEMINGTON: A description of the Sewage Disposal Plant at Flemington may be found in the State Board of Health Report for 1909 on Page 233. The plant consists of screens, dosing tank and land filters. An inspection was made on May 9, 1913, and with the exception of a considerable deposit of sludge in the dosing tank the plant was in a satisfactory condition.

FREEHOLD: A description of the Sewage Disposal Plant at Freehold consisting of screens, dosing tank and land filters may be found in the State Board of Health Report for 1909 on Page 234. An inspection was made on March 12, 1913, and the plant was found to be in fairly good condition although the final effluent decolorized methylene blue in four days. On September 8, 1913, the plant was in good shape and work was in progress in constructing new beds on the other side of the brook. A description of these new beds may be found in the current report of the Engineering Department.

GIBBSBORO: A description of the Sewage Disposal Plants of the John Lucas Manufacturing Company at Gibbsboro may be found in the current report of the Engineering Department.

GIBBSTOWN: An inspection of the Sedimentation Tank and Ground Absorption Plant for disposing of the sewage from the boarding house of the E. I. Du Pont Company was made on October 11, 1913, and conditions were found to be satisfactory.

GLEN GARDNER: New Jersey Sanatorium for Tuberculous Diseases. A description of the Sewage Disposal Plant at the New Jersey Sanatorium for Tuberculous Diseases at Glen Gardner, which consists of a Sedimentation Tank, Dosing Chamber, Sprinkling Filters, Settling Basin and Cinder Filters may be found in the State Board of Health Report for 1909 on Page 234. An inspection was made on October 2, 1913, and the plant was found to be in bad condition. This plant is greatly overloaded and should be enlarged.

GRENLOCH: Bateman Manufacturing Company.—A description of the new sewage disposal plant of the Bateman Manufacturing Company at Grenloch may be found in the current report of the Engineering Department. An inspection was made on July 11, 1913, and the effluent was found to be cloudy and to have a strong odor. On subsequent visits on October 4, and October 18, 1913, the plant was found to be inoperative owing to the failure of the ejector to work properly. Since the last inspection the ejector has been repaired.

HADDONFIELD: A description of the Sewage Disposal Plant serving the Borough of Haddonfield, consisting of Sedimentation Tank, Dosing Chamber, Sprinkling Filter, Settling Basin and Sand Filters may be found in the State Board of Health Reports for 1909 and 1911, on Pages 235 and 321 respectively. The sand beds are not often used and as a rule are in poor condition. The effluent from the sprinkling filter after settling passes into the creek, and though fairly clear, usually decolorizes methylene blue in three or four days. On January 3, 1913, the sprinkling nozzles were clogged and one of the by-passes was found to be in operation. On January 22 the plant with the exception of the sand beds was found to be in a fairly good condition, although one of the by-pass valves was leaking. On February 14, 1913, the plant was in satisfactory condition. The by-passes at this plant should be removed.

HADDON HEIGHTS: A description of the Sewage Disposal Plant at Haddon Heights, composed of Sedimentation Tanks, Coke Strainers, Dosing Tank and Sand Filters, may be found in the State Board of Health Report for 1911 on Page 322. On January 16, 1913, it was found that the small tank was filled with sludge and the large tank was put into service. At this time it was noted that the sand beds needed grading. Subsequent inspections on January 22 and 28 and October 8, 1913, showed the plant to be in excellent condition. The final effluent is uniformly clear, sparkling and non-putrescible.

HILLARD'S ISLAND: A. H. Riggs.—The Sewage Disposal Plant at the residence of Mr. A. H. Riggs at Hillard's Island, is described in the State Board of Health Report for 1910 on Page 364. The plant was found to be in a satisfactory condition on September 3, 1913.

HOPEWELL: St. Michael's Orphan Asylum.—The small Sewage Disposal Plant at St. Michael's Orphan Asylum at Hopewell is composed of a Sedimentation Tank, Dosing Chamber and Stone Beds. The plant was visited on April 26, 1913, and found to be in very poor condition. The sedimentation tank was filled with sludge and the dosing chamber had sludge in it to such a depth that the siphons failed to work and permitted a continuous flow of sewage onto the stone beds. Directions were given for the improvement of conditions and the plant was found to be in a better shape, although the stone beds had not been overhauled and the final effluent was unsatisfactory on June 4, 1913.

INTERLAKEN: A description of the Sedimentation Tank, Pump Well and Pumping Station at Interlaken may be found in the State Board of Health Report for 1909 on Page 235. During the past summer new motors and pumps have been installed. Inspections were made on July 18, August 12, and September 10, 1913, and at the last visit it was found that the installation of the pumps had been completed and that the plant as a whole was in a satisfactory condition.

ISLAND HEIGHTS: A description of the Sewage Disposal Plant at Island Heights, composed of a Screen Chamber and Sand Filters may be found in the State Board of Health Report for 1910 on Page 364. The plant was visited on June 19, 1913, and the plant as a whole was in fairly good condition, although it would be advantageous to construct a sedimentation tank to prevent the disposition of solid material on the sand beds, and to provide troughs for a better distribution of the dose over the beds.

JAMESBURG: New Jersey State Home for Boys.—A description of the Sewage Disposal Plant serving the New Jersey State Home for Boys may be found in the State Board of Health Report for 1909 on Page 236. Inspections were made on February 21, and June 4, 1913, and with the exception of a few minor details the plant was in good condition. On September 18, 1913, the filter beds were found to be filled with weeds and the final effluent decolorized methylene blue in two days.

KENILWORTH: American Circular Loom Company.—A description of the Waste Disposal Plant of the American Circular Loom Company at Kenilworth may be found in the State Board of Health Report for 1912 on Page 333. The plant was visited on April 18, 1913. On analysis a sample of the effluent from the plant was found to contain excessive amounts of sulphuric acid and ferrous sulphate and it was noticed that the vegetation in the swamps, to which the effluent flows, had been destroyed.

KEYPORT: A description of the Sewage Sedimentation and Disinfection Plant at Keyport may be found in the State Board of Health Report for 1912 on Page 333. Inspections were made on November 14, 1912, April 1, and July 21, 1913. The plant is fairly well taken care of but the application of the hypochlorite solution has, at times, been found to be more or less irregular.

LAKEHURST: A description of the old Sewage Disposal Plant at Lakehurst, which is described in the report of State Board of Health for 1909 on Page 237, was inspected on October 3, 1913. At this time, owing to the fact that the Pine Tree Inn was closed, the flow was very small. The new sand beds were found to be completed and presented a satisfactory appearance. The final effluent was clear, sparkling and non-putrescible.

LAKEWOOD: A description of the old Sewage Disposal Plant at Lakewood, consisting of Screens and Sand Filters, may be found in the State Board of Health Report for 1911 on Page 324. A description of the new plant, which has been built and which ultimately will replace the old plant, may be found in the current report of the Engineering Department. On November 20, 1912, it was found that the old plant, which was then in use. had just been overhauled owing to the fact that the underdrains had become clogged. The final effluent was cloudy and decolorized methylene blue in less than two days. On March 20, 1913, it was found that the sewage was being screened at the old plant. but that the sand beds at the new plant were in use. The final effluent was very poor due probably to the poor distribution on the beds. A putrescibility sample decolorized methylene blue in slightly over one day. On October 22, 1913, the old beds were found to be temporarily in use and discharging a fairly clear effluent.

LAWRENCEVILLE: Lawrenceville Preparatory School.—A description of the Sewage Disposal Plant connected with the Lawrenceville Preparatory School may be found in the State Board of Health Report for 1909 on Page 237. The plant was inspected on December 10, 1913, and found to be in a very satisfactory condition.

LOCH ARBOUR: The Sewage Sedimentation Tank at Loch Arbour is described in the State Board of Health Report for 1911 on Page 325. An inspection on September 10, 1913, showed the tank to be practically filled with solids and the local authorities were instructed to clean it as soon as possible.

LONG BRANCH: A description of the Sewage Disposal Plant at Long Branch, comprised of Screens and Tidal Tank, may be found in the State Board of Health Report for 1911 on Page 325. The plant was inspected on February 13, 1913, and it was found that the screens were not in use and that the sewage was flowing directly into the tidal tank. On August 26, 1913, the plant was found to be in fairly good condition. At neither of the above mentioned visits was there any indication of sewage returning to the shore.

LONGPORT: During the year two sewage disposal plants have been built at Longport. The plants consist of sedimentation tanks and disinfection with hypochlorite, and a description of them may be found in the current report of the Engineering Department. An inspection on June 13, 1913, showed that although the plants were completed and ready for operation a supply of hypochlorite had not been secured. On July 17, 1913, it was found that an attempt had been made to start the plants but that at the lower plant, owing to leaks in the hypochlorite solution tanks, the application of the disinfectant was very irregular and at the upper plant a by-pass valve was found open, allowing the sewage to flow around the plant. At a subsequent visit on September 17, 1913, it was found that the plants were being operated very poorly, and that no attempt had been made to carry out the instructions given at the previous inspection.

MAHWAH: American Brake Shoe and Foundry Company.—A description of the Sewage Disposal Plant, comprised of flush tank and sand filters, for disposing of the sewage of the American Brake Shoe and Foundry Company's factory and rolling mill at Mahwah, may be found in the State Board of Health Report for 1911 on Page 368. An inspection was made on August 29, 1913, and the sand beds were found to be in poor condition and covered with weeds and tomato plants. The Superintendent was instructed to clean the beds. At the time of this visit the effluent was clear and odorless.

MANASQUAN: A description of the sedimentation tank at Manasquan may be found in the State Board of Health Report for 1910 on Page 367. The tank was visited on September 19, 1913, and was found to be in a satisfactory condition. The tank was last cleaned in May 1913.

MARGATE CITY: The two sewage disinfection plants at Margate City were visited on July 16 and 17, 1913. At the Nassau Avenue plant it was found that the method of mixing the hypochlorite solution was improper and local authorities were instructed regarding the proper procedure. At the Adams Avenue plant the application of the hypochlorite was more satisfactory.

MEDFORD: A description of the sedimentation tanks and sand filters comprising the sewage disposal plant at Medford may be found in the State Board of Health Report for 1911 on Page

326. On Septemer 6, 1913, an inspection showed that the tanks were in good condition but that the beds were not. A sample of the effluent decolorized methylene blue in two days. A subsequent visit on October 9, 1913, showed that conditions had not been improved and the local authorities were instructed to overhaul the plant at once.

MERCHANTVILLE: A description of the Merchantville Sewage Disposal Plant, which consists of settling tanks, dosing chamber, coke strainers and sand filters may be found in the State Board of Health Report for 1909 on Page 237. This plant has received a great deal of attention from this Department during the past year and inspections have been made on November 5, 11, and 26, and December 7, and 22, 1912, and on January 10, 20, 27, and 30, February 15, March 31, April 15, June 3, 6, and 17, July 23, and August 28, 1913. Many minor changes have been made at this plant during the past year. During the early part of the year the sedimentation tanks, which were completly filled with sludge, were cleaned. The tank was built without any provision for sludge removal and the task of cleaning was a very difficult one. While the tanks were empty, however, holes were cut in the side walls and pipes inserted with gate valves attached. A trough, built of wood, was constructed across sand bed No. 1 leading to a sludge bed dug near the end of that bed. By opening the gate valves the sludge can now be readily removed. During the year four new lines of underdrains have been laid in six of the eight beds and the coke barrers at the end of the beds have been removed. The plant as a rule is in an unsatisfactory condition and the sand beds are usually covered with scum. In the summer a great deal of trouble was caused by growths due to the continued ponding of the beds. The average time for putrescibility samples of the final effluent to decolorize methylene blue has been ten days, the minimum time four days, and the maximum time in excess of fourteen days.

METUCHEN: Creamery of D. S. Ginna. Woodbrook Farm.—A description of the plant for treatment of creamery wastes from the creamery of D. S. Ginna, Woodbrook Farm, Metuchen, may be found in the current report of the Engineering Department.

MILLVILLE: A description of the Sewage Disposal Plant at Millville, consisting of sedimentation tanks, aeration well, primary contact beds, copper sulphate disinfection, storage tank, sludge pit, and sludge pumps may be found in the State Board of Health Report for 1911 on Page 327. Inspections were made on November 12, 1912, January 3, and 29, February 26, August 26, and October 21, and 28, 1913. The operation of this plant is far from satisfactory. Apparently the flow is excessive and the dosing siphons seldom work properly on account of the effluent which is retained, at times of high tide, backing up into the discharge pipes. This prevents the proper alternation of the contact beds, and for the most part these beds act merely as strainers. The method of applying the copper sulphate has not improved and is very inefficient, practically all of the disinfectant being applied to the first part of the dose as discharged from the contact beds. It is proposed to make changes in the plant in the near future so that hypochlorite can be used as a disinfectant.

MONTAGUE: Rock Spring Creamery Company.—The tank for disposing of the wastes of the Rock Spring Creamery at Montague by precipitation with lime, is described in the State Board of Health Report for 1911 on Page 328.

MOORESTOWN: A description of the Sewage Disposal Plant at Moorestown consisting of sedimentation tanks, dosing chamber, and contact beds may be found in the State Board of Health Report for 1909 on Page 238. During the past year on account of the excessive flow the contact beds have been operating more or less as strainers and the final effluent has been putrescible. Inspections were made on July 16, and on August 2, 8 and 9, 1913. In connection with plans submitted for proposed enlargement of the plant a test was made in August, 1913, to determine the flow of sewage. A six foot weir was inserted in the sedimentation tanks and a continuous record of heads obtained for a period of one week by the use of the recording machine, mentioned in connection with the Bordentown Sewage Disposal Plant. The average daily flow was found to be 435,000 gallons and the total fluctuation in rates of flow varied from 285,000 to 590,000 gallons per day. A description of the proposed changes may be found in the current report of the Engineering Department.

MORRIS PLAINS: The New Jersey State Hospital for the Insane.—Descriptions of the two Sewage Disposal Plants of the New Jersey State Hospital for the Insane at Morris Plains, consisting of a sedimentation and sand filtration system and a land irrigation system may be found in the State Board of Health Report for 1909 on Page 239. An inspection was made on December 11, 1912, and the condition of the plants was not altogether as satisfactory.

MORRISTOWN: A description of the Sewage Disposal Plant at Morristown, consisting of sedimentation tanks, primary contact beds and sand filters, may be found in the State Board of Health Report for 1910 on Page 366. This plant shows every evidence of careful attention and intelligent management and is uniformly in satisfactory condition. The sewage as it arrives at the plant is quite old and on this account it would probably be helpful if the time of filling the contact beds could be cut down; but this would necessitate structural changes and since the final effluent is uniformly clear and non-putrescible such a course at present is not necessary. Inspections were made on November 4, and December 20, 1912, February 19, September 26, and October 17, 1913.

MULLICA HILL: The small Sewage Disposal Plant at Mullica Hill, which is described in the State Board of Health Report for 1912 on Page 339, was visited on September 20, 1913, and was found to be in a satisfactory condition.

NEPTUNE TOWNSHIP: A description of the new Sewage Disposal Plant of Neptune Township, consisting of sedimentation tanks, and Sea Outfall Pipe may be found in the current report of the Engineering Department.

NESHANIC: Lehigh Valley Railroad Creamery.—The Disposal Plant for treating the creamery wastes of the Lehigh Valley Railroad Creamery at Neshanic is described in the State Board of Health Report for 1911 on Page 329. It was visited on September 9, 1913, and was in a very satisfactory condition.

NEW LISBON: Burlington County Hospital for the Insane. —The reconstructed Sewage Disposal Plant connected with the Burlington County Hospital for the Insane at New Lisbon may be described as follows: The 10″ pipe running from the buildings of the hospital carries the sewage into a screen chamber, 5 ft. square and 3 ft. deep, fitted with a sloping screen made up of ½″ rods spaced 1½″ on centers. A 10″ pipe runs from the screen chamber to the Sedimentation Tank, which is circular in shape, 16 ft. in diameter and 7 ft. deep, and with walls of brick 9″ thick. This tank tapers at the bottom to a point from which a 6″ pipe leads to the sludge bed. The tank is fitted with four baffle boards arranged across the line of flow. These baffles are 5½ ft. deep. From the Sedimentation Tank the sewage enters the dosing chambers near the contact beds. The dosing chamber is 11½ ft. long, 3 feet wide, and is divided into four compartments. The contact beds (two in number) are 65 ft. long. 18 ft. wide, arranged side by side. They are filled with furnace slag, 4 ft. deep at the inlet end and 3½ ft. deep at the outlet, and they are underdrained by 8 rows of 4″ round terra cotta pipe laid 2 ft. on centers. The discharge of the contact beds is controlled by a second set of siphons in a chamber similar to the dosing chamber, located at the discharge end of the contact beds. The sewage from the contact beds goes through a 10″ pipe for 300 ft. which reduces to 6″ pipe, and thence 300 ft. to the sand beds. The sand beds, two in number, are 60 ft. square, with 3 ft. of sand in them. The beds are equipped with 17 lines of 4″ underdrains spaced 3 ft. on centers, and running to a 6″ main collector at the outlet end. The underdrains are laid with open joints, surrounded with muslin and covered for a few inches with broken stone. The distributors on the sand beds are troughs running diagonally across them. The sludge bed is 9′x18′ with 3′ of gravel and having one 6″ main underdrain, which runs into the 10″ pipe running to the sand beds. The effluent from the sand beds runs into a ditch, and thence about two miles through the fields into a branch of the Rancocas River. Inspection was made on November 22, 1912, and the plant was not in good condition owing to the fact that the improvements had not been completed, but on October 10, 1913 an inspection found the plant to be in a very satisfactory condition and turning out a clear and non-putrescible effluent.

NEW LISBON: Burlington County Almshouse and Hospital. The Sewage Disposal Plant of the Burlington County Almshouse and Hospital at New Lisbon, consisting of Sedimentation Tank and Tile Absorption System has been described in the State Board of Health Report for 1909 on Page 240. It was inspected on October 10, 1913, and was reported to be in satisfactory condition.

NEWTON: The two Sewage Disposal Plants at Newton located one at Clinton Street and one at Sparta Street have been described in the State Board of Health Report for 1909 on Page 240. Each plant is composed of Sedimentation Tanks and Sand Filters. Both tanks were visited on October 27, 1913. At the Sparta Avenue plant the beds were found to need cleaning and grading, and the automatic dosing device was reported to be out of order. This trouble has been reported at several previous visits and the city authorities at Newton have been ordered to repair the dosing device or else install a new one. At the Clinton Street Plant the beds were found to be in poor shape, owing to the fact that the attendant had devoted practically all of his time to relaying underdrains in the beds. At both these plants the sedimentation tanks are becoming filled with sludge, and will require cleaning in the near future.

OCEAN CITY: A description of the Sewage Disposal Plant for treating the sewage of Ocean City with hypochlorite of lime may be found in the State Board of Health Report for 1911 on Page 329. An inspection was made on October 6, 1913, and it was found that the tank was being operated properly. Disinfectant was being added at the rate of ten parts of available chlorine per million, but the bacterial results were not entirely satisfactory.

OCEAN GROVE: A description of the Sewage Sedimentation Tanks at Ocean Grove may be found in the State Board of Health Report for 1909 on Page 241. The tanks were cleaned in March 1913. The heavy sludge which accumulated in the detritus chambers was carted away and the sludge in the main tanks was flushed out into the ocean by means of fire hose. Inspections were made on March 18, and August 12, 1913, and conditions were found to be satisfactory.

OVERBROOK: Essex County Hospital for the Insane.—A description of the Sewage Disposal Plant of the Essex County Hospital for the Insane at Overbrook, consisting of Sedimentation Tanks, Contact beds and Sand Filters, may be found in the State Board of Health Report for 1909 on Page 242. Inspection was made on July 7, 1913, and the plant was found to be in excellent condition turning out a clear and non-putrescible effluent.

Pemberton: A description of the Settling Basin and Land Disposal area constituting the Sewage Disposal Plant at Pemberton, may be found in the State Board of Health Report for 1909 on Page 243. Inspections were made on November 22, 1912; June 19, and August 29, 1913. At none of these inspections could any evidence be found of sewage escaping into the creek.

Plainfield: A description of the Sewage Disposal Plant at Plainfield, consisting of Sedimentation Tanks and Primary and Secondary Contact Beds, may be found in the State Board of Health Report for 1909 on Page 243. During the past year all of the stone in the primary contact beds has been removed and washed. The stone was removed from a bed to one end of the plant, where it was washed, dumped into carts and deposited in another bed which was being filled with the cleaned stone. In cleaning the stone a concrete mixer with cylindrical screen with ¾″ holes was used. A stream of water was applied through a perforated pipe at the center of the revolving screen. The dirty stone is dumped into a hopper and drops into the mixer, passes through the mixer and revolving screen and dumps into a cart below. Such stone as passed through the holes of the screen was rejected as being too fine, and enough coke was placed on the beds to make up for the volume thus lost. Inspections were made on February 14, and May 7, 1913, and it was found that the cleaning was in progress, and that consequently the operation of the plant was not up to standard. On October 16, 1913, an inspection was made and it was reported that the plant was operating fairly satisfactorily.

Pleasantville: New Rodney Hotel.—A description of the Sewage Disposal Plant serving the New Rodney Hotel at Pleasantville, consisting of Sedimentation Tanks, Flush Tank and Primary Contact Beds, may be found in the State Board of Health Report for 1911 on Page 331. An inspection was made on June 13, 1913, and although the plant apparently was in good condition nothing could be learned regarding its operation on account of the hotel not being open.

POINT PLEASANT: A description of the Sedimentation Tank at Point Pleasant may be found in the State Board of Health Report for 1909 on Page 244. Inspection was made on September 19, 1913, and it was reported that the tank was filled with solids and required cleaning.

PRINCETON: The North East Sewage Disposal Plant at Princeton has been described in the State Board of Health Report for 1909 on Page 244. This plant has received a great deal of attention from this Department during the past year and inspections were made on November 19, 1912, January 11, 29, March 4, April 14, 30, June 7, 14, 20, July 31, and August 27, 1913. On several occasions it was found that the sewage was not flowing to the plant, but was being by-passed directly into Harry's Brook, a stream flowing into Carnegie Lake. Notwithstanding the fact that this condition has frequently been called to the attention of the Borough authorities it has repeatedly occurred. During the early part of the summer the method of operating the beds was changed, at the suggestion of this Department, so as to secure better alternation. To date, this change has proven advantageous. Putrescibility samples collected have, on the average, decolorized methylene blue in slightly less than ten days; the minimum period for decolorization being less than one day, and the maximum period in excess of fourteen days.

The West Field for disposing of the sewage of a portion of Princeton by broad irrigation is described in the State Board of Health Report for 1909 on Page 244. On January 11, 1913, raw sewage was found running directly into the brook. Subsequent inspections on June 14, and 20, 1913, showed that the area was capable of taking care of the applied sewage during dry weather.

The College Field at Princeton for disposing of the sewage of a portion of the Borough is described in the State Board of Health Report for 1909 on Page 244. A visit was made on January 11, 1913, and raw sewage was found to have spread over the land almost to a stream running into Carnegie Lake.

The so-called White City Plant for treating a portion of the sewage of Princeton by means of Sedimentation Tanks and Broad Irrigation is described in the State Board of Health Report for 1912 on Page 342. On January 11, 1913, the sewage was found to have flowed over the ground to such an extent that it was passing directly into the lake. It is proposed to abandon both the College and White City Plants upon the completion of the new and more modern Sewage Disposal Plant, which is now in course of construction.

QUARRYVILLE: Horton and Lewis Cream Company.—See State Board of Health Report for 1910 on Page 367.

RAHWAY: New Jersey State Reformatory.—A description of the Sewage Disposal Plant, consisting of a Biolytic Tank and Hypochlorite Disinfection Plant for treating the sewage of the New Jersey State Reformatory at Rahway, may be found in the State Board of Health Report for 1910 on Page 367. Inspections were made on December 17, 1912, and February 21, 1913, At each visit the plant was found to be operating in a fairly satisfactory manner, although the method of applying the hypochlorite should be changed so as to secure a solution of constant strength.

RALSTON: A description of the small Sewage Disposal Plant serving St. Margaret's Home, an institution for orphaned children, located at Ralston, may be found in the State Board of Health Report for 1910 on Page 368. An inspection was made on October 14, 1913, and it was found that one of the tanks was filled with solids and should be cleaned.

RED BANK: Adescription of the Sedimentation Tanks at Red Bank may be found in the State Board of Health Report for 1909 on Page 245. During the past year the plant was been changed and the settled sewage is now treated with hypochlorite as a disinfectant. A description of these changes may be found in the current report of the Engineering Department. Visits were made on November 14, 1912, June 16, 18, 19, 24 and 25, and July 24, 1913. The dose of hypochlorite was adjusted by representatives of this Department. It was found, however, that owing to the nature of the regulating device the dose of hypochlorite solution was not at all times proportional. At the last inspection it was found that the plant was operating apparently in a satisfactory manner and that the instructions given were followed.

RIDGEWOOD: Descriptions of portions of the Sewage Disposal Plant at Ridgewood may be found in the State Board of Health Reports for 1909 and 1911 on Pages 246 and 332 respectively. During the past year the plant has been greatly improved by an extension of the contact areas and these improvements are described in the current report of the Engineering Department. It is at present too early to judge of the effectiveness of these changes, but all indications seem to indicate that when the beds become seeded and the dosing device is made reliable that the final effluent will be much improved. There has been a very helpful spirit of cooperation manifested by the local authorities in connection with the operation of this disposal plant. Inspections were made on November 21, 1912, January 2, and 23, February 26, May 22, July 8, August 29 and September 19, 1913.

RIVERSIDE: The description of the Sewage Disposal Plant at Riverside, consisting of Pumping Station, Sedimentation Tanks, Contact Beds and Sand Filters, may be found in the State Board of Health Report for 1910 on Page 368. During the year a new screen chamber has been built and has demonstrated its usefulness. As far as the direct operation of the plant is concerned it must be commended for the plant is well attended to and the final effluent is uniformly clear and non-putrescible. In other matters, however, the local authorities' action is open to censure. It had been the practice at Riverside to pump only in the daytime, and at night to allow the sewage to fill up in the pipes to such a depth that an overflow pipe leading from a manhole on the main trunk sewer became operative. In this way the night sewage was by-passed. The local authorities were ordered to seal up this overflow and this office was notified that this had been done. At a subsequent inspection, however, it was found that although the original overflow had been sealed that another overflow pipe had been installed running from a manhole near the new screen chamber, into the effluent discharge pipe. The same result of by-passing the night sewage was thereby accomplished, only the position of the overflow being changed. To all appearances, a deliberate attempt had been made to deceive the Board and its representatives. This matter is now in the hands of the Attorney General for action. Inspections were made on November 22, 1912, January 1, June 25, and 27, August 22, and October 2, 1913.

ROEBLING: A description of the Roebling Sewage Disposal Plant, comprising Screens, Sedimentation Tanks, Dosing Tank, Primary and Secondary Contact Beds, Settling Tank and Sand Filters may be found in the State Board of Health Report for 1910 on Page 368. The plant was inspected on June 26, 1913, and it was found that the tanks needed cleaning and that the sand beds were not in very good condition. A new sludge bed is now in course of construction.

RUMSON: The small Sewage Sedimentation and Hypochlorite Disinfection Plant constructed by the Rumson Land and Development Company at Rumson was visited on October 8, 1913. It was found that the bacterial reduction was very unsatisfactory and that the hypochlorite solution as applied was not of sufficient strength.

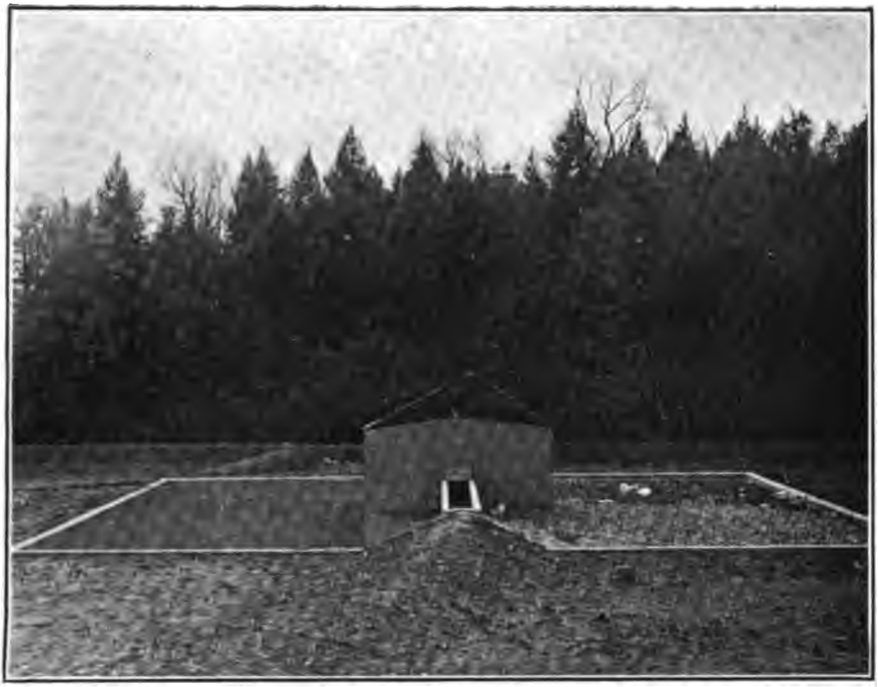
SEA GIRT: State Camp.—The Sedimentation Tank at the State Camp, Sea Girt is described in the State Board of Health Report for 1910 on Page 369. On two different occasions rifle practice prevented a close examination of the plant.

SKILLMAN: New Jersey State Village for Epileptics. A description of the Sewage Disposal Plant of the New Jersey State Village for Epileptics, consisting of Sedimentation Tanks, Dosing Chamber, Contact Beds and Earth Beds, may be found in the State Board of Health Report for 1912 on Page 345. The plant was inspected on December 16, and 27, 1912, and January 21, March 19, and 24, April 25, September 25, and October 22, 1913. On all of these dates the plant was found to be in an unsatisfactory condition, turning out a cloudy effluent. The trouble is due, in part, to faulty construction and in part to lack of attention.

SMITH'S LANDING: Atlantic County Asylum for the Insane. A description of the Hypochlorite Disinfection Plant for treating the sewage from the Atlantic County Asylum for the Insane at Smiths' Landing may be found in the State Board of Health Report for 1911 on Page 333. The plant was visited on September 24, 1913 and the effluent as found to be fairly satisfactory from a bacterial standpoint. The sedimentation tank, however, was found to be filled with solids and the superintendent of the Asylum was requested to have it cleaned.

SMITHVILLE: A description of the Sedimentation Tank and Ground Absorpton System of Sewage Disposal at Smithville may be found in the State Board of Health Report for 1911 on Page 333. An inspection was made on September 2, 1913, and the plant was reported to be in a satisfactory condition.

SPRING LAKE: The three Sewage Sedimentation Tanks at Spring Lake have been described in the State Board of Health Report for 1909 on Page 246. At the request of the local Superintendent of Streets and Sewers a representative of this



SKILLMAN : Sewage Disposal Plant.

SKILLMAN : Sewage Disposal Plant, Beds Flooded.

Department visited Spring Lake on April 3, 1913, and gave advice and instructions in regard to cleaning the tanks. At a subsequent inspection on May 1, 1913, it was found that the tanks had all been cleaned and were apparently in satisfactory condition.

STONE HARBOR: A description of the Hypochlorite Disinfection Plant at Stone Harbor may be found in the State Board of Health Report for 1909 on Page 347. The plant was inspected on October 10, 1913, and was found to be in very poor condition, and the dosing orifices were clogged to such an extent that the hypochlorite solution could not pass through.

THREE BRIDGES: Lehigh Valley Railroad Creamery. The plant for treating the wastes from the Lehigh Valley Railroad Creamery at Three Bridges is described in the State Board of Health Report for 1911 on Page 334. An inspection was made on September 9, 1913, and the settling tanks were found to contain large quantities of solid material and the manager was requested to have the tanks cleaned immediately.

TRENTON: Agasote Millboard Company. A description of the Sewage and Wastes Disposal Plant of the Agasote Millboard Company at Trenton may be found in the current report of the Engineering Department. This is another plant to which this Department has devoted a great deal of attention during the past year. Inspections were made on November 13, 1912, January 15, February 10, July 1, and 17, August 16, September 17 and 29, October 16, 17, 23, 29, and 31, 1913. During the first part of the year the company was very slow in connecting the trade wastes to the disposal plant. When the wastes were connected it was found that owing to the fibrous nature of the suspended material the beds clogged very rapidly. The company in September 1913, appealed to this Department for advice in regard to the treatment of this trade waste, and experiments are now in progress.

TRENTON: De Laval Steam Turbine Company.—A description of the Sewage Disposal Plant serving the De Laval Steam Turbine Company at Trenton may be found in the State Board of Health Report for 1911 on Page 334. The plant consists of Sedimentation Tanks and Stone Filters. An inspection was made on September 13, 1913, and the plant was found to be in an entirely satisfactory condition.

TRENTON: I. O. O. F. Home.—A description of the Pumping Station and small Sand Filters comprising the Sewage Disposal Plant connected with the I. O. O. F. Home at Trenton, may be found in the State Board of Health Report for 1909 on Page 247. Inspections were made on June 24, July 1, and 26, 1913, and with the exception of an occasional derangement of the automatic starting device controlling the pumps, the plant was in a satisfactory condition.

TRENTON: Pennsylvania Railroad Shops.—The Sedimentation Tank of the Pennsylvania Railroad Shops at Trenton has been described in the State Board of Health Report for 1911 on Page 334. It was inspected on September 13, 1913, and was reported to be in a very satisfactory condition.

VENTOR: The two Hypochlorite Disinfection Plants for treating the sewage of Ventnor have been described in the State Board of Health Report for 1911 on Page 334. Both plants were visited on June 13, and July 16, 1913, and the conditions found to exist were not satisfactory.

VERONA: Newark City Home for Truant Boys.—The Subsurface Irrigation System of Sewage Disposal for the Newark City Home for Truant Boys at Verona, which is described in the State Board of Health Report for 1909 on Page 240, was visited on July 7, 1913, and was found to be in a better condition than is usual with this plant.

VINELAND: A description of the Sewage Disposal Plant at Vineland, consisting of Settling Basins, Sand Filters and Hypochlorite Disinfection Plant, may be found in the State Board of Health Report for 1909 on Page 247. The plant was tested on February 13, 1913, and the bacterial reduction was very satisfactory on account of the large quantities of disinfectant that were being added. On October 27, 1913, the plant was found to be in as good a condition as possible for this plant.

VINELAND: New Jersey Training School for Feeble-Minded Girls and Boys.—The Sewage Disposal Plant of the New Jersey Training School for Feeble-Minded Girls and Boys at Vineland is described in the State Board of Health Report for 1911 on Page 335. An inspection made on October 27, 1913, showed the sedimentation tank to be filled with solids and in need of cleaning. The irrigation field in places showed evidences of being overworked.

WASHINGTON: A description of the Sewage Disposal Plant at Washington, consisting of Grit Chamber, Sedimentation Tanks, Contact Beds and Sand Filters may be found in the State Board of Health Report for 1911 on Page 336. An inspection on October 25, 1913, showed that the plant was apparently in a very good condition, the sand beds all being clean and level. A sample of the final effluent, however, decolorized methylene blue in four days.

WATER WITCH: The Sedimentation Tank for disposing of the sewage of the Water Witch Club at Water Witch has been described in the State Board of Health Report for 1909 on Page 247. An examination of the plant was made on October 31, 1913, and the effluent was satisfactory.

WENONAH: The two Sewage Disposal Plants at Wenonah are being entirely rebuilt. The old disposal plants are described in the State Board of Health Report for 1909 on Page 247.

WESTFIELD: A description of the old Sewage Disposal Plant at Westfield may be found in the State Board of Health Report for 1909 on Page 248. During the year two new Imhoff tanks have been added to the plant, and a description of these may be found in the current report of the Engineering Department. Inspections were made on September 26, and October 16, 1913, and it was found that the Imhoff Tanks were a decided improvement and reduced the load on the sand beds very materially.

WOODBURY: The Sewage Sedimentation and Storage Tank at Woodbury is described in the State Board of Health Report for 1911 on Page 336. Nothing has been done during the past year to improve the condition of this plant. An inspection was made on August 30, 1913, and it was found that the sewage was being discharged on the incoming tide, and was being carried by the stream up into the confines of the city.

WOODBRIDGE: There are two new Sewage Disposal Plants at Woodbridge. They are described in the current report of the Engineering Department.

WOODSTOWN: A description of the Sewage Disposal Plant of the Woodstown Sewerage Company at Woodstown, consisting of Sedimentation Tank and Sand Filters, may be found in the State Board of Health Report for 1909 on Page 249. Inspections were made on January 24, and September 15, 1913, and on both occasions the plant was found to be in very poor condition and giving every indication of continual lack of attention. The company has been instructed to give the plant proper attention.

WOODSTOWN:—Supplee Alderney Dairy.—A description of the Disposal Plant for treating the wastes from the creamery of the Supplee Alderney Dairy at Woodstown may be found in the State Board of Health Report for 1911 on Page 337. Inspections were made on January 24, and Septemebr 15, 1913, and the plant was found to be in as good a condition as could be expected from a plant of this type.

Wortendyke: Granite Linen Mills.—A description of the Sewage Disposal Plant for treating the sewage and some of the waste liquors from the Granite Linen Mills at Wortendyke may be found in the State Board of Health Report for 1910 on Page 337. On account of the continual clogging of the sand beds by paper and particles of lint the installation of a settling tank was advised. During the first part of the year the plant suffered from lack of attention; the solid sewage materials being allowed to accumulate on the surface of the beds and a very poor distribution of the dose being noticeable at practically every visit. Inspections were made on January 23, February 26, April 8, and 25, June 4, and July 8, 1913.

STREAM INSPECTION.

During the year the four inspectors have been kept busy, when not required to collect samples of water from public water supplies, in making detailed inspections of properties along and adjacent to the streams for the purpose of locating cases of minor sources of pollution. The watersheds are first covered, next areas which would affect shellfish waters and lastly the water courses of the rest of the State. Each inspector has a certain territory allotted him and he works in that district unless called away by emergency orders.

There have been made during the year 369 water supply inspections in addition to 38 inspections of supplies for bottled waters. Detailed or partial inspections of 30 watersheds and 4 ice supplies, together with those of 526 sewerage systems have been made. The inspectors have reported 1012 stream pollutions and 2131 pollutions have been reinspected.

Early in the Spring of 1913 the Water Department of Jersey City requested that an investigation be made of the Rockaway river watershed above Boonton, which furnishes the public water supply of that city. A field party was organized consisting of C. W. Sparmaker, C. B. Robinson, N. A. Keeler, and F. B. Worman. Mr. George T. Palmer was put in charge of the party and the general features of the report prepared by him follow herewith; part 2 consisting of twelve sections, each dealing with a particular portion of the shed, and containing descriptions of results of inspections, list of pollutions, maps, photographs, etc., being omitted:

SANITARY SURVEY OF THE JERSEY CITY WATERSHED.

February—May, 1913.

TABLE 82.—CONDENSED RECORD OF SIGNIFICANT DATA.

Source—Rockaway River above Boonton.
Area of Watershed in Square Miles—123.4.
Population of Watershed (estimated)—24,000.
Population per square mile—195.
Per cent Urban Population—75.
Per cent Rural Population—25.
Large Towns in Watershed—Dover, Boonton, Wharton, Rockaway.

Number of Polluting Premises on which 10-day Notices were served	**196**
Number of Premises where Pollutions were found *Abated* on Reinspection	**126**
Number of Premises where Pollutions were found *Unabated* on Reinspection, *but showing improvement*	**16**
Number of Premises where Pollutions were found *Unabated* on Reinspection	**54**
Per cent of Pollutions found *Abated*	**64**
Per cent of Pollutions found *Unabated* but showing improvement	**8**
Per cent of Pollutions found *Unabated*	**28**
Number of cases referred to Local Boards of Health	**19**
Number of Local Board cases found *Abated* on Reinspection	**3**
Number of Local Board cases found *Unabated* on Reinspection	**16**
Per cent of Local Board cases fround *Abated*	**16**
Per cent of Local Board cases found *Unabated*	**84**

The water supply of Jersey City is taken from the Rockaway River above the reservoir dam at Boonton. The dam impounds a reservoir of about 1.5 square miles in area. The average daily consumption of water amounts to about 41,000,000 gallons. The population of Jersey City is close to 270,000.

The Morris Canal from Lake Hopatcong to Boonton is a tributary of the water supply, there being numerous connections with the River throughout this course.

Nearly the entire watershed, covering an area of about 123 square miles, is located within Morris County near Boonton and Dover.

There are five main tributaries to the stream; Stony Brook, Beaver Brook, Green Pond Brook, north of the River, and Den and Mill Brooks on the south side. The areas of the various districts of the watershed, together with the distances of their mouths above the reservoir are given in the following table:

TABLE 83.

Stream	*Area of Shed Sq. Miles*	*Distance of mouth above Boonton Reservoir. (Washington Ave., Bridge) Miles*
Stony Brook	12.0	3.6
Den Brook	8.5	6.7
Beaver Brook	23.8	8.9
Mill Brook	4.5	11.4
Green Pond Brook	16.1	14.6
Main Stream and remaining Tributaries	58.5	...
Total	123.4	

In general the watershed is hilly, the little flat land that there is being immediately adjacent to the stream. The following table is presented to give an idea of the elevation of the stream, and the highest summits in the different districts:

TABLE 84.

Stream	Elevation in feet above Sea Level Approximate Elevation at Mouth	Highest Summit in Shed
Stony Brook	500	1048
Den Brook	500	1027
Beaver Brook	520	1130
Mill Brook	540	1022
Green Pond Brook	600	1247
Main Stream	305 (Reservoir)	1406

Along the lower reaches of Stony Brook, Beaver Brook, Den Brook, and Green Pond Brook, and on the main stream between Dover and Powerville there is some marsh land but this is but a small proportion of the total area.

From 70 to 80 per cent. of the watershed is woodland. Of the remainder perhaps three-quarters is pasturage, or under cultivation, and one-quarter is occupied by the populated districts.

POPULATION.

The main centers of population on the watershed are at Boonton, Rockaway, Dover and Wharton. These four cities with a population of 18,400, or about 75 per cent. of that on the entire shed, are located on the banks of the main stream and the canal. Boonton is situated at the entrance to the reservoir, and Rockaway, Dover and Wharton 10, 12 and 16 miles respectively, above the reservoir.

The estimated population of each of these places, as well as of other settlements in the watershed districts for 1913 is set forth in the following table:

TABLE 85.

District and Place	Population	Total
Main Stream		21,150
Boonton	5300	
Rockaway	2100	
Dover	8000	
Wharton	3000	
Elsewhere	2750	

TABLE 85.—Continued.

District and Place	*Population.*	*Total.*
Stony Brook		200
Den Brook		650
Denville	300	
Mt. Taber	100	
Elsewhere	250	
Beaver Brook		1,150
Mt. Hope	300	
Lower Hibernia	300	
Upper Hibernia	300	
Elsewhere	250	
Mill Brook		150
Green Pond Brook		700
Total Population on Shed		24,000

NOTE: The population in the rural districts has been estimated from the dwellings seen in the course of the inspection of the streams. These figures may be somewhat low as houses away from the stream and hidden from view, would not be included. This table does not include summer population.

The concentration of population in the various districts is shown in the following table. Summer population is not included.

TABLE 86.

District	*Area in Sq. Miles*	*Estimated Population*	*Population per Sq. Mile*
Stony Brook	12.0	200	17
Den Brook	8.5	650	77
Beaver Brook	23.8	1,150	48
Mill Brook	4.5	150	33
Green Pond Brook	16.1	700	44
Main Stream and remaining Tributaries	58.5	21,150	358
Total	123.4	24,000	195

The urban population or that in the four large towns, makes up 75 per cent. of the total. This leaves 25 per cent. or about 6,000 people scattered in the rural districts.

In addition to the permanent population, there is probably an influx of 2,500 people during the summer time at Mount Tabor, Estline, Openaki, and Shongum Lakes in the Den Brook district at Split Rock Pond in the Beaver Brook district; at Green Pond in the Green Pond district, and at Denville, Upper and Lower Longwood on the main stream. A detailed inspection at these places will be made during the summer,

SOURCES OF POLLUTION.

The degree of pollution of any waterway varies directly with the accessibility to the stream by human and animal traffic.

In a watershed as thickly populated as the one under consideration, there are innumerable sources of pollution. These pollutions range in importance from the direct deposition of human excrement into the water, to the indirect washing of roads and cultivated fields into the streams at times of rain. Some of these pollutions are preventable. Others are absolutely impossible to prevent, and must be recognized as characteristic features of the watershed.

Of the preventable pollutions, some come under the jurisdiction of the State and others lie within the scope of the local boards of health. The State law prohibits the deposition of "sewage, excremental matter, domestic refuse or other polluting material" into a water course, which serves as a public water supply. Upon local boards of health devolves the abatement of local nuisances, which directly or indirectly affect the quality of a stream. From this it is apparent that what constitutes a pollution of a stream cannot always be sharply defined, nor can the responsibility for removing this pollution always be definitely fixed.

In the inspection of this watershed, certain sources of pollution have been found which come within the prohibition of the State law and these have been dealt with by the serving of ten-day notices upon the owners of property on which they occur, to cease polluting. Other sources of pollutions of a more or less indirect character have been referred to local boards of health for abatement. Further than this, where the conditions found would hardly warrant the sending of pollution notices, letters have been sent to certain property owners, requesting that changes be made for the purpose of better protecting the stream.

In this connection it might be stated some sources of pollution are such only at *certain seasons of the year.* The present inspection was made during February, March and April. In considering the table of pollutions that follows it should be borne in mind that this was the condition of affairs at the time of this inspection. An inspection made during the summer or autumn would show that some of the pollutions recorded in this table would not affect the stream at that time, but it might also show the existence of pollutions not discovered on the present inspection.

In this report a pollution is to be understood as a *"polluting premises,"* upon which violations of the State law were found. On some premises there were several distinct sources of pollution. In the classification, the distinct sources of pollution have been enumerated. The sum of these figures will thus not correspond to the figures in the column headed "Total Pollutions."

TABLE 87.—SOURCES OF POLLUTION.

DISTRICT.	Total Pollutions.	Public sewer.	Private sewer (House drain).	Privy.	Cesspool.	Sink Water.	Garbage.	Animal Manure.	Industrial Waste.
Boonton and Reservoir	24	....	18	4	1	....	....	7	1
Main stream—Boonton, Beaver Brook	22	....	3	11	....	5	2	13	1
Stony Brook	8	....	....	5	....	....	....	7	
Den Brook	19	....	7	6	2	1	2	9	....
Beaver Brook	42	....	6	37	....	3	....	16	1
Rockaway	26	1	11	13	1	3	2	1	1
Mill Brook	8	....	1	8	....	....	....	2	....
Main stream—Beaver Brook to Green Pond Brook	14	....	....	11	....	....	....	8	....
Green Pond Brook	20	....	3	15	....	1	....	8	....
Wharton	6	1	2	2	1	1	....	....	....
Main stream west from Green Pond Brook	8	....	2	5	....	....	....	6	....
Total	197	2	53	117	5	14	6	77	4

POLLUTIONS REFERRED TO THE LOCAL BOARDS OF HEALTH.

The number of pollutions referred to the attention of the Local Boards of Health is here given by districts.

TABLE 88.

Boonton and Reservoir	4
Main Stream—	
Boonton to Beaver Brook	1
Den Brook	1
Beaver Brook	8
Rockaway	4
Main Stream—	
Beaver Brook to Green Pond Brook	1
Total	19

INTERMITTENT SOURCES OF POLLUTION.

Besides the tangible sources of pollution already covered in the above paragraphs, there may be briefly mentioned other sources of pollution which are difficult and in some cases impossible to prevent. Some of these pollutions are more or less permanent and some are transitory, occurring but occasionally. These may be summarized as follows:

DIRECT OCCASIONAL SOURCES OF POLLUTION.

People and animals crossing bridges.
People walking along stream.
People fishing.
People swimming.
People boating.
People skating.
People gathering ice.
Toilets on railroad trains.
Domestic refuse thrown in stream from adjacent houses.

PERMANENT INDIRECT SOURCES OF POLLUTION.

Surface wash from streets and yards.
Surface wash from roads.
Surface wash from manured fields.

Of primary importance in this connection is the fact that the four cities, Boonton, Rockaway, Dover and Wharton, have no sanitary sewers. This condition makes necessary the use of privies and cesspools, and tempts people to make connections with the storm water sewers. Thus every rain-fall washes polluting material into the stream, much of which would be kept out if the towns were sewered and the sewage properly cared for. Boonton and Dover in particular, and Rockaway to a lesser degree, are situated on precipitous banks of the stream so that the storm run-off is heavy and rapid. A large portion of the residential district of Boonton, however, is cut off from the water supply, the drainage being discharged into a level of the Morris Canal that feeds the river below the dam. Dover is a menace to the river because of its low elevation and the large number of cesspools in it, and their proximity to the stream. All of the storm flow of Dover, Rockaway and Wharton enters the water supply. It is not possible to divert the street wash from these places, as well as the road wash in the smaller settlements and country districts, but it is worth while to use every effort to keep this wash as clean as possible.

As an example of the extent of pollutions of this class it may be noted that there are nearly 200 highway crossings of the streams in the watershed, and about 60 railroad crossings.

UNCOMPLETED INSPECTION WORK.

Besides the places already mentioned as uninspected, there also remains that portion of the Morris Canal west from the watershed line to Lake Hopatcong. All of these places, including Lake Hopatcong, had best be visited in the summer months.

CONDITIONS FOUND UPON REINSPECTION.

The 10-day notices to cease pollution were served within two weeks at the most after the pollutions were reported to the office. Reinspection of premises was begun as soon as possible after the expiration of the ten days. In general, the first inspections were made in February and March and the reinspections in May.

The following table is presented to show the results of this reinspection work.

Of the 196 polluting premises, on which 10-day notices were served, 126 or 64 per cent. were found abated. Sixteen or 8 per cent. were found improved, but still existing as pollutions. Fifty-four or 28 per cent. failed to comply with the notice.

The cases referred to the attention of the Local Boards of Health were with three exceptions found unaltered. It is of interest to note that the rural districts showed a much larger percentage of abatements than the cities.

A second table, headed "SOURCES OF POLLUTION" is also inserted here to show the nature of pollutions still existing on the watershed.

TABLE 89.—SHOWING RESULTS FOUND ON FIRST REINSPECTION AFTER SERVICE OF 10-DAY NOTICES.

DISTRICT.	Pollutions served with 10-day notices.	Pollutions found abated on respection.	Pollutions found unabated but showing improvement.	Pollutions found unabated on reinspection.	Cases referred to local boards of health.	Found abated on reinspection.	Found unabated on reinspection.
Boonton	24	14	6	4	4	0	4
Main stream—Boonton to Beaver Brook	22	18	3	1	1	0	1
Stony Brook	8	8	0	0	0	0	0
Den Brook	19	17	0	2	1	0	1
Beaver Brook	42	15	3	24	8	2	6
Rockaway	26	13	4	9	4	0	4
Mill Brook	8	7	0	1	0	0	0
Beaver Brook to Green Pond Brook	14	11	0	3	1	1	0
Green Pond Brook	20	15	0	5	0	0	0
Wharton	6	2	0	4	0	0	0
Main stream—West from Green Pond Brook	7	6	0	1	0	0	0
Total	196	126	16	54	19	8	16
Per cent. of total		64	8	28		16	84

TABLE 90.—SOURCES OF POLLUTION—Found on First Reinspection After Service of 10-day Notices.

DISTRICT.	Total pollutions.	Public sewer.	Private sewer (house drain).	Privy.	Cesspool.	Sink water.	Garbage.	Animal manure.	Industrial waste.
Boonton and Reservoir	10		9						1
Main stream—Boonton—Beaver Brook	4			2				1	1
Stony Brook	0								
Den Brook	2						2	1	
Beaver Brook	27		4	25		2		6	
Rockaway	13	1	3	9	1				2
Mill Brook	1			1					
Main stream—Beaver Brook to Green Pond Brook	3			3					
Green Pond Brook	5		1	4		1		2	
Wharton	4	1	1	1	1	1			
Main stream west from Green Pond Brook	2			2				1	
Total	71	2	18	47	2	4	2	11	4

SUMMARY AND RECOMMENDATIONS.

The purpose of the inspection described in this report, was to ascertain the exact condition of that portion of the watershed of the Rockaway River from which water is obtained to supply Jersey City, to secure the abatement of all pollutions maintained on that watershed in violation of law, and to gather data which would point out the best methods to be pursued in protecting the watershed in the future.

As is shown in the introduction, this watershed is quite densely populated, and three-quarters of its population is in close proximity to the stream. Because of the hilly character of the country, a very large proportion of the rainfall soon finds its way into the stream, affording the maximum opportunity for pollution from surface wash. Besides the polluting matter added to the river in this way, there is serious direct and continuous pollution from Dover, Rockaway and Wharton, and portions of Boonton which are all unsewered. The flow of the stream is rapid in most places, and the distance from its headwaters to the Boonton reservoir is short, affording but limited opportunity for purification by sedimentation.

Bacteriological analyses, which have been made at frequent intervals by employees of the Jersey City Water Department, show that the degree of pollution of the water as it enters the reservoir is such that it is quite unfit for potable use at that point. In the reservoir considerable purification by sedimentation takes place. This purification, however, is by no means complete enough to render the water safe for domestic purposes, and the water is therefore treated with calcium hypochlorite as it leaves the reservoir. This treatment has been adequate to protect the uses of the water up to the present time. It has been found necessary, however, because of the increasing pollution of the river, to increase the dose of hypochlorite from time to time in order to secure a sufficient reduction in the number of bacteria in the water. At the present time an amount of hypochlorite, equivalent to approximately 0.7 parts of available chlorine per million parts of water, is being added. It is not possible to use a much larger dose than this, without producing objectionable tastes and odors in the treated water; a condition not in itself dangerous to health, but so objectionable to the senses that it will not be tolerated by the water consumer. It is, therefore, imperative that something be done in the near future to check the increasing pollution of the river; for unless some action is taken, the time will soon come when the amount of hypochlorite which it is permissible to add to the water will no longer suffice to secure adequate sterilization, and it will then be necessary, either to abandon the supply, or to resort to some other method of purification. The only other method available is filtration, and the construction of a suitable filter plant, large enough to filter the water used by Jersey City, would cost a very large sum, probably close to a million dollars.

The most serious and direct pollution which the river receives comes from Dover, in a manner described later in this report. This cannot be abated to any extent until the town is equipped with a complete system of sanitary sewers, and some means for the purification of its sewage. Sections of Boonton, and all of Rockaway and Wharton, need to be sewered also. The sewage of these municipalities even after treatment in sewage disposal plants, could not be safely discharged into the river at a point so close to the head of the reservoir. The most feasible plan to care for this sewage, a plan which has already been proposed and which is likely to be carried out in the near future, is to construct a trunk sewer along the line of the river, into which sewage from the sanitary sewers of Wharton, Dover, Rockaway and Boonton could be discharged, and by this means lead the sewage to a point below the reservoir and there treat it before it is returned to the river. Inasmuch as this river is used as a source of water supply some distance below Boonton, the treatment of this sewage should be carried on with more than ordinary care, so that the purity of the water supplied below would not be jeopardized. Later, it would be advantageous to extend this sewer up the river to take in the Hibernians and Mount Hope. If this plan is carried to completion, most of the burden of polluting matter, which is now taxing the plant at Boonton to nearly the limit of its capacity, would be removed. It should not be forgotten, however, that if this trunk sewer is built, a considerable quantity of water which now reaches the river above the reservoir, and is, therefore, available for use in supplying Jersey City, will be diverted to a point below the reservoir. During dry seasons, the flow of the river hardly suffices to supply Jersey City at the present time, and it will, therefore, probably be necessary in the future either to provide for additional storage, or to supplement the present supply by water taken from other sources.

While the construction and operation of the trunk sewer will materially improve the condition of the river, it will continue to be necessary to constantly patrol the watershed, for the purpose of discovering and abating minor pollutions, which are always occurring in such a densely populated area. Inasmuch as the watershed, with the exception of certain very small areas, is not owned, and cannot be acquired, by Jersey City, the municipality has little or no authority to remedy existing conditions on it. Any improvements which the municipality brings about must be accomplished by persuasion, or else by appeal to the State Board of Health, which has power to cause the abatement of direct pollutions. Unfortunately the State Board has not a sufficent force to enable their inspectors to constantly patrol this shed. At the present time, the Jersey City authorities maintain a force of four inspectors, presumably for the purpose of discovering and abating pollution. These men have had no special training whch would fit them for their duties, and not much supervision appears to have been exercised over them. It is evident that they have accomplished very little toward improving the condition of the watershed, but have succeeded in arousing, to a marked degree, the hostility of the people living on it. It should be emphasized that if Jersey City is to maintain an inspection force on the watershed, the inspectors should be trained sanitary engineers, capable of forming a reliable opinion, regarding the relative importance of pollution, and also capable of giving expert advice as to their abatement. It is also highly important that such inspectors should be liberally provided with tact, discretion and common sense, for what results they get must be secured by persuasion, and they must be able to conciliate and help the offenders with whom they come in contact. If a suitable person could be found, it is probable that one trained sanitary engineer, with some additional assistance at times, could cover the entire watershed, and also make such examinations of the water as need to be undertaken in the field.

In order to keep the watershed clean, constant co-ôperation between the Jersey City authorities, the State Board of Health, and the local boards of health of the various municipalities involved, is needed. If this can be brought about to such an extent that all are working in harmony, and with full understanding of each other's activities, there will be little difficulty in preventing any serious increase in the pollution of the river.

The hypochlorite plant at the Boonton Dam is the vital point of the whole system. Unless this is managed in such a manner that the hypochlorite is added to the water *at all times* in proper amounts, the supply will become unsafe. The plant itself is well designed and constructed, and, up to the present time, has been operated in a satisfactory manner. It appears, however, that the local or resident supervisor of the plant is a man without the knowledge or training to enable him to intelligently direct the treatment of the water, and that this duty falls upon the chemist, who is a competent sanitary engineer, and who works under the general direction of the sanitary adviser of the Board of Water Commissioners. This is not a satisfactory arrangement because in case of illness or absence of the chemist, no one is available to run the plant. The supervisor of this plant should be a trained sanitary engineer, thoroughly familiar with the methods of water purification. Such a man could perform the duties of the chemist, should the latter be temporarily absent, and he also could and should have charge of such inspection force as is maintained on the watershed. He should work in co-operation with, and under the general supervision of the sanitary adviser.

ENGINEERING: Chester G. Wigley, Chief Sanitary Engineer. This is the fourteenth year since the passing of the act, establishing a State Sewerage Commission and it will probably be of interest to summarize the work accomplished during that time.

Prior to the establishment of that Commission, there were four sewage disposal plants in the State at the following named places:

Lawrenceville School	Constructed in	1885
Burlington	" "	1892
Freehold	" "	1894
Flemington	" "	1898

After 1900, sewage disposal plants were constructed in the number given below:

TABLE 91.

Year	*Plants Constructed.*
1900	2
1901	2
1902	2
1903	7
1904	3
1905	9
1906	1
1907	14
1908	4
1909	20
1910	21
1911	15
1912	19
1913	25

At the present time there are 151 sewage disposal plants in the State, either in operation or under construction. Of these, there are 75 plants in use in 65 municipalities; 22 treating trade wastes or toilet wastes from factories; and 47 treating sewage from institutions and small residential sections. About one-third of these plants have been constructed by municipalities in connection with new sewer systems, without being ordered to do so by this Board. Many of the plants have been constructed at the seashore summer resorts where, during the summer season, the population increase, from ten to twenty times the normal winter population. Therefore, while the sewage from a population of 260,000 is treated in the State during the whole year, it is estimated that the sewage from a population of 650,000 is treated during the summer months.

The accompanying tabulation will show the status of the sewage question in relation to the population of the State:

TABLE 92

Population using sewers	1,879,500	or	75%	of	State	Population
Population using disposal plants	260,000	or	10½%	"	"	"
Population using sewers, ordered to install disposal plants	489.500	or	19½%	"	"	"
Population not ordered to install disposal plants	484,100	or	19%	"	"	"
Population tributary to Passaic trunk sewer	645,900	or	26%	"	"	"

The Passaic Valley Trunk Sewer, which is under construction at the present time, will relieve the Passaic River and its tributaries of a large volume of sewage, and thereby improve the condition of the worst polluted stream in the State.

The population of 484,100 which has not been ordered to install disposal plants is in municipalities located along the waters of New York Harbor. It is apparent, from the reports of the Metropolitan Sewerage Commission of New York, that these waters will not care for the sewerage from the Metropolitan district much longer, and it will soon be necessary to require some form of treatment for the sewage which is discharged into them.

The table on the following page gives a detailed statement of the sewage disposal plants within the State. This tabulation was compiled from the records of this office. In one or two instances the flow of sewage was estimated from the number of house connections, allowing 500 gallons of sewage for each connection.

WORK OF THE ENGINEERING DEPARTMENT.

The year just closed has been a busy one from the standpoint of engineering. An additional sanitary engineer has been employed by the Board in order that more frequent inspections of work under construction may be made.

The following work has been investigated and acted upon:

Engineering inspections made	**199**
Extensions to existing sewer systems approved	**98**
Extensions to existing sewer systems disapproved	**12**

Complete sewer systems were approved for 17 towns.
One sewage pumping station was approved.

SEWAGE DISPOSAL PLANTS.

Many plans for sewage disposal plants, have been investigated and acted upon. Plans for thirty-three disposal plants were approved and six were disapproved. Plans for one combined sewer system were disapproved.

Plans for partial reconstructions or additions to existing disposal plants, were approved for seven municipalities.

This phase of the sewage disposal question is a difficult one to adjust, as municipalities are not always ready nor willing to expend money for the improvement of works that have become over-loaded, because of their rapid growth of the community, or which, for other reasons, have become inadaquate and unsatisfactory in their operation.

A more detailed account of this work is given below:

SEWERAGE WORKS ACTED UPON AND REPORT OF INSPECTIONS.

Asyla: On November 22, 1912, in inspection was made of the disposal plant.

Atlantic Highlands: On October 20, 1913, an inspection was made of a private sewage disposal plant under construction at this place, for Charles S. Duvale.

AUDUBON: Inspections of the sewerage works under construction were made on July 16, August 25, and October 23, 1913. On September 9, 1913, permission to change the site of the disposal plant was granted.

AVALON: On April 18, 1913, and on August 21, 1913, inspections were made in order to ascertain whether or not this municipality was complying with the orders of the Board.

BEACH HAVEN: On July 29, 1913, an inspection was made of the new sewage disposal plant and sewer system.

BELMAR: On March 4, 1913, plans and specifications for a new outfall sewer were approved.

On March 4, 1913, plans for sewer extensions were returned because of the use of unusually large pipe with very flat grades.

On March 11, 1913, plans for sewer extensions in the southern portion of Belmar were approved, with the understanding that the trunk sewer was to be flushed for a period of time, not less than thirty minutes, at least once every week.

BEVERLY: In response to a request that the sewage disposal plant be inspected for the purpose of determining whether or not the plant had been constructed in a satisfactory manner, an engineering inspection was made of the plant. It was found that a sludge by-pass had been constructed contrary to the orders of this Board, and the authorities were instructed to have the by-pass removed. The authorities were also notified, that although the plant had been constructed in accordance with the plans on file in this office, the report should not be so construed as to refer to the structural features of the plant, or to materials used in the works.

BOGOTA: On January 21, 1913, plans for a sewer system and sewage disposal plant were approved and, as the plans included disinfection with hypochlorite of lime, the authorities were notified that the sewage need not be treated with hypochlorite at this time.

BOUND BROOK: On April 8, 1913, a sewer extension was approved. On September 26, 1913, an inspection was made to ascertain what steps had been taken toward complying with the orders of the Board.

BRIDGETON: On April 8, 1913, a sewer extension on Cottage Avenue was approved. On July 22, 1913, plans for a trunk sewer on the westerly side of Cohansey Creek were approved.

BURLINGTON: On January 28, 1913, plans for a sludge bed, to be constructed at the disposal plant of the Thomas Devlin Manufacturing Company, were approved. Revised plans for the sludge bed were approved on October 14, 1913.

BUTLER: Pequannock Valley Paper Mill. An August 27, 1913, an inspection was made of a trade wastes disposal plant under construction at this place.

BYRAM TOWNSHIP: McRoy Farms Sanatorium. Visits to this place were made on September 13, October 4 and 11, 1913, for the purpose of advising as to the reconstruction of a private sewage disposal plant. On October 14, 1913, plans for the sewage disposal plant were approved.

CALDWELL: On September 30, 1913, an inspection was made of the sewers being constructed in this place.

CAMDEN: On August 4, and September 17, 1913, inspections were made of sewers under construction at this place.

Sewer extensions were approved on November 26, 1912, March 4 and August 12, 1913.

Cape May City: On December 16, 1912, an inspection was made of the site of the proposed sewage pumping station. On December 17, 1912, plans for the sewage pumping station and trunk sewers were approved, with the proviso that a duplicate pumping plant be installed. Extension to the sewer system was approved on July 1, 1913. Inspections, at this place, were made on April 21 and July 31, 1913.

Cape May Court House: On August 21, 1913, an inspection was made of the sewage disposal plant constructed for the county buildings.

Cape May Point: Inspections of the sewerage system at this place were made on April 21 and July 30, 1913.

Chatham-Madison: On January 23, 1913, a special inspection of this sewage disposal plant was made.

Cliffside Park: On May 15, 1913, an inspection was made of the sewer system under construction at this place.

Collingswood: On December 10, 191., plans for a sewer extension on Lee's Land were approved. On June 17, 1913, plans for changes in the settling tank at the disposal plant were approved.

Cranford: On February 6, 1913, the engineer of the Board attended a public meeting in this place, at which the problem of disposing of the town sewage was discussed. Inspections at this place were made on November 8, 1912, and September 9, 1913. Extensions of the sewer system were approved on March 25 and May 13, 1913.

Deal: On March 4, 1913, plans for the reconstruction of a sewer on Sidney Avenue were approved.

Delford: On September 29, 1913, this place was visited, in order to ascertain what measures had been taken toward complying with the orders of the Board.

Dunellen: On November 26, 1912, plans for a sewerage system and joint disposal plant were approved.

Ewing Township: Oaklyn Real Estate Company. On July 22, 1913, plans for a sewer system and sewage disposal plant were approved.

Fairview: Inspections of the sewerage works under construction at this place were made on May 15, August 27 and October 25, 1913.

Flemington: On December 31, 1912, plans for sewer extensions were approved.

Fort Lee: Inspections of sewers under construction at this place were made on December 7, 1912, and September 5, 1913. On May 13, 1913, plans for sewer extensions were approved.

Garwood: Sewer extensions were approved on May 13, and August 26, 1913.

Gibbsboro: John Lucas Manufacturing Company. On April 24, 1913, an inspection was made of three disposal plants at the factory of the above company. Two of the plants had just been completed.

Gloucester: On September 17, 1913, this place was visited in order to escertain whether or not anything had been done toward the construction of a sewage disposal plant.

Grenloch: Bateman Manufacturing Company. On November 18, 1912, an inspection was made of the sewage disposal plant which was nearly completed.

HACKENSACK: On December 31, 1912, plans for a system of sanitary sewers and two sewage disposal plants were approved with the proviso that the effluent shall be discharged into the current of the stream, and that the plant shall be so constructed as to permit of further purification should it become necessary. On January 14, April 1, May 27, and September 2, 1913, extensions to the sewer systems were approved.

HADDONFIELD: On June 3, 1913, an extension of the sewer system was approved.

HADDON HEIGHTS: Sewer extensions were approved on March 11, April 15, and June 17, 1913.

HAMMONTON: On March 4, 1913, plans for a sewage disposal plant were held for further investigation. On April 8, 1913, plans for a sewer system and sewage disposal plant were approved. Revised plans for the sewage disposal plant were approved July 1, 1913. A preliminary inspection of the site for the disposal plant was made on March 5, and the work under construction was inspected on September 18, 1913.

HELMETTA: George W. Helme Company. On February 25, 1913, plans for a sewage disposal plant and sewer system were approved. Inspections of the work under construction were made on August 7, August 25, and October 16, 1913.

HIGHLANDS: On October 17, 1913, an inspection was made of a private sewage disposal plant being constructed for the East View Hotel.

HIGHTSTOWN: Inspections of the sewerage works under construction at this place were made on November 22, 1912, May 12, and August 7, 1913.

JERSEY CITY: On September 12, 1913, notice to cease the pollution of the Hackensack River was served in person.

Lakewood: On January 28, 1913, plans for sewer extensions were received and filed. On September 30, 1913, plans for a sewer extension were approved. On September 24, 1913, an inspection was made of the sewage disposal plant under construction.

Leonia: On May 15, 1913, inspection was made of the site for a proposed sewage disposal plant. On June 3, 1913, plans for trunk sewers and a sewage disposal plant were approved, with the proviso that additional treatment be installed when required and also that the effluent be discharged into the main current of the creek. On August 26, 1913, revised plans, providing for the discharge of settled sewage into a ditch on the meadows, were disapproved. On September 2, 1913, plans for sewer extensions were approved.

Little Falls: On March 18, 1913, plans for a sewer system and two sewage disposal plants were submitted, and the sewerage system and main disposal plant were approved. The disposal plant for the West Park section of Little Falls was disapproved.

On October 28, 1913, revised plans for the sewer system and disposal plant were approved.

Long Branch: Sewer extensions were approved on the following dates: January 14, January 28, February 25, May 13, May 27, and October 7, 1913.

Long Branch: West End Cottages. On May 13, 1913, plans for a sewage disposal plant were approved.

Macopin: On July 29, 1913, plans for a sewer system and sewage disposal plant were approved.

Medford: On December 3, 1912, plans for a sewer system and sewage disposal plant were approved.

MERCHANTVILLE: On March 11, 1913, plans for a sludge bed were approved. On April 23, 1913, inspection showed that the sludge bed was not being constructed in accordance with the plans, and the superintendent of the sewerage works was cited to appear before the Board. A subsequent inspection was made on September 17, 1913.

MILLTOWN: On October 7, 1913, plans for a sewer system and sewage pumping station were approved.

MILLVILLE: Inspections were made at this place on April 7 and June 23, 1913, to ascertain whether or not any action had been taken for the improvement of the sewage disposal plant.

MILLVILLE: Millville Manufacturing Company. On April 7, 1913, an inspection of this plant was made for the purpose of ascertaining whether or not the proposed scheme for sewage disposal was adequate. On April 15, 1913, plans for a sewage disposal plant were approved. An inspection was made on June 23, 1913.

MOORESTOWN: After an investigation, on May 6, 1913, plans for a sewage disposal plant, near the water works, were disapproved on May 13, 1913. On August 12, 1913, plans for the reconstruction of the sewage disposal plant were disapproved. On September 9, 1913, revised plans for the reconstruction of the sewage disposal plant were approvel, with the proviso that additional works be constructed within two years. A sewer extension on South Church Street was also approved on this date. An inspection of this plant was made on August 2, 1913.

MORRISTOWN: Extensions to the sewer system of this place were approved on February 25, April 1, and August 12, 1913.

NEPTUNE TOWNSHIP: Inspections were made of the sewage disposal plant and outfall under construction at this place on January 25, May 5, and August 25, 1913.

NEW BRUNSWICK: On December 5, 1912, it was ascertained that this city was constructing sewers without obtaining the approval of the Board. As this municipality had not complied with the order of the Board in reference to the proper disposal of its sewage, the matter was referred to the Attorney-General, and, on December 14, 1912, a bill, to show cause, and a restraining order were served upon the Mayor. The city was later permitted to complete the construction of some of the sewers.

NEW BRUNSWICK: New Brunswick Chemical Company. An inspection was made of the pollution from this factory on November 7, 1912.

NEW PROVIDENCE: Bonnie Burn Sanatorium. On October 28, 1913, revised plans for a sewage disposal plant were approved.

NORTH BERGEN: On December 10, 1912, plans for a combined sewer system were disapproved. On April 8, 1913, plans for a sewer system and disposal plant were approved, with the proviso that further purification processes be installed when required. On July 29, 1913, this municipality was ordered to cease polluting the Hackensack River prior to August 1, 1914. Inspections, at this place, were made on December 5, 1912, September 8, and September 30, 1913.

NORTH PLAINFIELD: Plans for a sewer system and joint sewage disposal plant were approved.

NORTH WILDWOOD: Inspections were made on November 22, 1912, and August 1 1913, in order to ascertain whether or not any steps had been taken for the proper disposal of the sewage.

PALISADES PARK: On September 23, 1913, this place was visited for the purpose of ascertaining whether or not any steps had been taken for the purpose of disposing of the sewage in a proper manner.

PHILLIPSBURG: On January 21 and October 14, 1913, plans for sewer extensions were approved.

PLAINFIELD: Plans for a joint disposal plant were approved November 26, 1912. Sewer extensions were approved on November 26, 1912 and April 1, 1913.

PORT MURRAY: On September 15, 1913, an inspection was made, for the purpose of advising as to the construction of a small disposal plant on the property of George H. Sliker.

POWERVILLE: Field & White Company. On May 7, May 22, and May 29, 1913, inspections and investigations were made for the purpose of advising as to the disposal of a paper mill trade waste. Inspections of the work of construction of the plant were made on August 29 and October 23, 1913. Plans for the disposal plant were approved on June 24, 1913.

PRINCETON: On June 24, 1913, sewer extensions were approved.

PRINCETON: Princeton University. On February 11, 1913, plans for a sewage disposal plant were approved. Revised plans for the sewage disposal plant were approved on August 12, 1913.

QUINTON: On August 6, 1913, an inspection was made of sewers in this municipality.

RAHWAY: On June 27, 1913, an inspection was made of the site for the proposed sewage disposal works. On October 14, 1913, a sewer extension was approved. On October 28, 1913, plans for the disposal plant were held for further investigation.

RARITAN: On September 26, 1913, an inspection was made at this place for the purpose of ascertaining whether or not anything had been done towards the construction of a disposal plant.

RED BANK: Inspections were made at this place on November 15, 1912, May 31, June 12, and June 13, 1913. On January 28, 1913, revised plans for a sewage disposal plant were approved.

RIDGEFIELD: On September 23, 1913, this place was visited, in order to ascertain whether or not any steps had been taken for the construction of a disposal plant.

RIDGEFIELD PARK: On September 23, 1913, this place was visited, in order to ascertain whether or not any steps had been taken for the construction of a disposal plant.

RIDGEWOOD: Plans for improvements to the sewage disposal plant were approved April 8, 1913. Sewer extensions were approved on the following dates: April 8, May 27, and October 14, 1913. Inspections were made at this place on April 3, May 26, and October 31, 1913.

RIVERTON: On September 19, 1913, this place was visited for the purpose of ascertaining whether or not any steps had been taken for the construction of sewage disposal works.

RIVER EDGE: On September 29, 1913, this place was visited for the purpose of ascertaining whether or not any steps had been taken for the construction of a sewage disposal plant.

ROEBLING: On September 30, 1913, plans for a sludge bed were approved.

ROOSEVELT: On February 11, 1913, plans for sewer extensions were approved.

SALEM: On August 5, 1913, an inspection was made of the sewerage works constructed at this place.

SEA ISLE CITY: On April 18 and August 20, 1913, inspections were made of the sewerage works under construction at this place.

SEASIDE PARK: On July 29, 1913, plans for a sewer system and sewage disposal plant were approved. An inspection was made September 24, 1913.

SECAUCUS: On June 3, 1913, plans for a sewer system and sewage disposal plant were approved, with the proviso that the capacity of the plant be increased when required by the Board. Inspections were made at this place on May 2 and August 26, 1913.

SEWELL'S POINT: Cape May Real Estate Company. On July 31, 1913, an inspection was made of the sewage disposal plant constructed for the above company.

SHARPTOWN: William B. Richman Creamery. On August 6, 1913, an inspection was made at this place, in order to ascertain what measures were being taken for the construction of a sewage disposal plant.

SOMERVILLE: On September 26, 1913, this place was visited, for the purpose of ascertaining whether or not any steps had been taken for the construction of a disposal plant.

SOUTH AMBOY: An inspection was made of the sewer outlets at this place on June 20, 1913.

SOUTH BOUND BROOK: On September 26, 1913, this place was visited, for the purpose of ascertaining whether or not the proposed sewerage works were under construction.

SOUTH ORANGE TOWNSHIP: On November 26, 1912, plans for sewer extensions were approved.

SOUTH PLAINFIELD: Spicer Manufacturing Company. On April 1, 1913, plans for a sewage disposal plant for this factory were approved. An inspection of the site was made on February 12, 1913.

SOUTH RIVER: On June 20, 1913, an inspection was made of the sewer outlet, in order to ascertain whether or not the proposed sewage disposal plant was under construction.

SPRING LAKE: On February 4, 1913, plans for a new outlet sewer at Brighton Avenue were approved. An inspection of the new sewer outfall was made on September 25, 1913.

SUMMIT: Extensions to the sewer system were approved on December 31, 1912, January 21, May 27, and June 3, 1913.

SUNNYSIDE: On October 25, 1913, an inspection was made of a creamery wastes disposal plant, which had been constructed at this place.

TENAFLY: On September 30, 1913, a preliminary scheme for the disposal of sewage was approved, with the proviso that additional purification be provided when required by the Board.

TOMS RIVER: On June 24, 1913, this place was visited, in order to ascertain whether or not the proposed sewerage works were being constructed.

TRENTON: Extensions to the sewer system were approved on the following dates: November 19 and 26, 1912, February 4, April 15, May 27, June 3, July 1, July 29, and September 2, 1913. On July 22, 1913, plans for a sewage disposal plant were approved.

TRENTON JUNCTION: State Hospital for the Insane. Upon the application of the officers of this institution plans for a small sewage disposal plant, for the treatment of creamery and toilet wastes from buildings on Knight's Farm, were prepared by this Division. An inspection of the site was made on October 28, 1913.

TUCKERTON: Radio Station. Plans for a sewage disposal plant were approved April 1, 1913. An inspection of the site of the proposed plant was made on March 20, 1913.

VENTNOR CITY: Plans for a sewage disposal plant for this place were, on July 22, 1913, held for further investigation. On March 14 and 15, 1913, and also from August 11 to 16, 1913, inclusive, current meter measurements were made and floats were placed in the thoroughfare, in order to ascertain the direction and velocity of flow of the currents. It was found that there was some danger of contaminating the oyster beds in Lakes Bay, at such times as certain conditions of tide and a southerly wind prevailed.

VINELAND: State Home for Feeble Minded Women. On October 28, 1913, plans for a sewage disposal plant were approved, after an inspection was made of the site for the proposed works, on October 3, 1913.

WENONAH: On April 30, 1913, an inspection was made of the sewage disposal plants at this place, in order to advise as to their reconstruction, as they were not in satisfactory working order. On July 22, 1913, plans for the reconstruction of these two plants were approved. An inspection of the work of construction was made on September 19 and September 26, 1913.

WEST ENGLEWOOD: On August 28, 1913, an inspection was made of the sewerage works under construction at this place.

WESTFIELD: Extensions to the sewer system were approved on November 12, 1912, May 20, and June 17, 1913. Inspections of the sewage disposal works under construction were made on November 8, 1912 and September 9, 1913.

WEST HOBOKEN: On October 14, 1913, plans for a sewer system were approved.

WESTMONT: On September 9, 1913, an inspection was made of a combined sewer system at this place. It was reported that household sewage was being discharged into the system, but this did not appear to be the case.

WILDWOOD: This place was visited on November 18, 1912, April 17, and August 1, 1913, in order to ascertain whether the proposed sewerage works were under construction.

WILDWOOD CREST: Inspections of the work of constructing the sewerage works at this place were made on November 21, 1912, April 17, and August 1, 1913.

WOODBRIDGE TOWNSHIP: On June 13, 1913, an inspection was made of the Woodbridge Avenue sewer. On September 22, 1913, inspections were made of the sites for four proposed sewage disposal plants. On September 25, 1913, plans for the sewage disposal plant at Port Reading were disapproved.

WOODBRIDGE TOWNSHIP: Sewaren Realty Company. On December 31, 1912, plans for a sewage disposal plant and sewer system were approved. An injunction had been served upon this company, preventing them from using their sewerage system until a proper disposal plant had been constructed. Inspections were made at this place on June 13 and September 4, 1913. On the latter date, it was found that the company had complied with the orders of the Board and the restraining order was ordered rescinded.

WOODBURY: On February 18, 1913, plans for a sewer extension were approved.

WOODLYNNE: On March 11, 1913, plans for a sewage disposal plant were approved. On September 16, 1913, plans for a sewer extension were approved.

WORTENDYKE: Granite Linen Mills. On September 30, 1913, plans for additions to the disposal plant were approved. An inspection was made at this place in June 4, and September 3, 1913. On the latter date, a weir was installed, for the purpose of measuring the sewage flow, in order to advise as to the installation of the proposed works.

SEWERAGE WORKS CONSTRUCTED DURING THE YEAR.

BEACH HAVEN: During the past year, a main collecting sewer, two sedimentation tanks, and a sea outfall have been constructed. The tanks, which are constructed of concrete, are located in Center Street, beneath the roadway. There are two tanks, each 52 feet long, 6½ feet wide, and 8 feet deep, with a storage depth of 7 feet. The 10 inch outfall extends into the ocean 500 feet beyond low water mark.

At the junction of Center Street and Bay Avenue, two compressed air ejectors, having a combined capacity of 300 gallons per minute, have been installed, for the purpose of lifting the sewage from the main sewer to the tanks. These tanks were completed about July 1, 1913.

Belmar: As the outfall, which had been in use at this place for about twelve years, had rusted away and broken off, a new outfall of 12 inch wrought iron pipe, extending 800 feet beyond low water mark, was constructed, for the purpose of discharging the settling tank effluent into the ocean. This pipe was installed during the spring of 1913.

Beverly: At this place, the sewer system and sewage disposal plant was completed in February, 1913. About 8 miles of sewers, ranging in size from 8 inches to 15 inches in diameter, were constructed. The disposal works consist of four sedimentation tanks, 65 feet long. Two of the tanks are 7 feet wide, one 8 feet wide, and the other 6 feet wide. The valves and outlets are arranged so that the tanks may be used in an elastic manner. The tanks are from 12 feet to 8 feet in total depth with an average depth of sewage of about 8½ feet. The sewage is treated with a solution of hypochlorite of lime.

Byram Township: McRoy Farms. During the summer of this year, a private disposal plant was constructed at this place. The plant consists of a settling tank, dosing chamber, subsurface irrigation, and a supplementary sand bed.

Cape May Court House: A sewage disposal plant, treating the sewage from the county buildings at this place, was constructed during the past year. The works consist of a sedimentation tank, and subsurface irrigation.

Freehold: Two additional land filter units were constructed at this place during the past year.

Gibbsboro: At this place, two sewage disposal plants were constructed for John Lucas & Company. System "A," taking the sewage from the main factory buildings, consists of a settling tank, dosing tank, and subsurface irrigation. The sewage is lifted, by a single compressed air ejector, to the settling tank.

This tank is 11 feet long, 7 feet deep at the inlet end and 6 feet deep at the outlet end, and 4 feet wide. The average depth of sewage in the tank is 4½ feet. The sewage is discharged into about 1,600 feet of 5 inch agricultural tile.

Disposal plant "B" receives sewage from the boarding house and dwellings. This plant consists of a tank 10 feet 8 inches long, 6 feet wide, and 7½ feet deep at the inlet end and 6½ feet deep at the outlet end. The average depth of sewage in the tank is 5 feet. The sewage is discharged, intermittently, into three fields of 5 inch agricultural tile.

A third disposal plant receives sewage from dwellings adjacent to Silver Lake. This plant has been in operation for some time.

GRENLOCH: The Bateman Manufacturing Company. A sewage disposal plant, receiving the toilet wastes and gas producer wastes at this factory, was completed during the past spring. This plant consists of dosing tanks, dosing chamber, and two sand beds. The tank is 18 feet long, 14 feet wide, and varies in depth from 3 feet at the ends to 8 feet near the middle. The sand filters are each 177 feet long and 35 feet wide. A single ejector is used to lift the sewage to the disposal plant.

HELMETTA: George W. Helme Company. In October, 1913, a sewage disposal plant, for this company, was completed. The plant consists of sedimentation tanks and contact beds. The sewage, collected in the main sewer, is lifted, by a single ejector, to the sedimentation tanks. There are two of these tanks, each 24 feet long, 6 feet wide, and an average depth of sewage of 5 feet. The contact beds, of which there are two, are each 44 feet long, 20 feet wide, and 6 feet deep.

After the plant had been placed in operation, it was discovered that the sewage flow was much smaller than was estimated and that the bottom of the contact beds leaked in such quantity that the beds did not fill up. Changes and repairs were made, so that this plant would operate in a satisfactory manner.

HIGHTSTOWN: At this place, about nine miles of sewers and a sewage disposal plant were constructed. The plant consists of a settling tank and four sand filtration beds. The settling tank is 55 feet long, 16 feet wide, and 4½ feet deep. The sand beds are each 220 feet long, 50 feet wide, and 2.8 feet deep. It became necessary to dredge out the brook, into which the filters discharged, in order to prevent the creek water backing up into the beds during rainy weather.

LONGPORT: There has been constructed, during the past year, a sewerage collecting system and two disposal plants. The Fourteenth Avenue plant consists of four Imhoff tanks, two of which are 9 feet 9 inches long and 5 feet wide, and the other two are 14½ feet long and 5 feet wide. The effluent is to be disinfected with hypochlorite of lime. The Idaho Avenue disposal plant is similar to and of the same size as the Fourteenth Avenue plant.

MERCHANTVILLE: A sludge bed was constructed at this place, in order to render easier the removal of sludge. This bed was not constructed in conformity with the approved plans and it was necessary to summon the person in charge to appear before the Board.

METUCHEN: Meadowbrook Farm. The unfortunate zeal of a contractor was responsible for the construction, at this place, of a plant for the disposal of creamery wastes. The plant consisted of two settling tanks, in which lime was added to the wastes. After settling for about twelve hours, the supernatant liquid was pumped, through sprinklers, into two gravel filters, each about 6 feet square. As was to be expected, the purification was only nominal, the effluent being highly putrescible. The owner of the farm, who, up to that time, had refused to pay for the plant, requested a representative of the Board to examine the plant, in order to obtain the approval of that body. It was found that the purification was not as good as was desirable and some preliminary experiments were made, in order to ascertain whether or not the plant could be so operated as to obtain a fair effluent. It was intended to make a rather exhaustive study of the plant, but, because of the lack of men, it was necessary to abandon the work for more important state work.

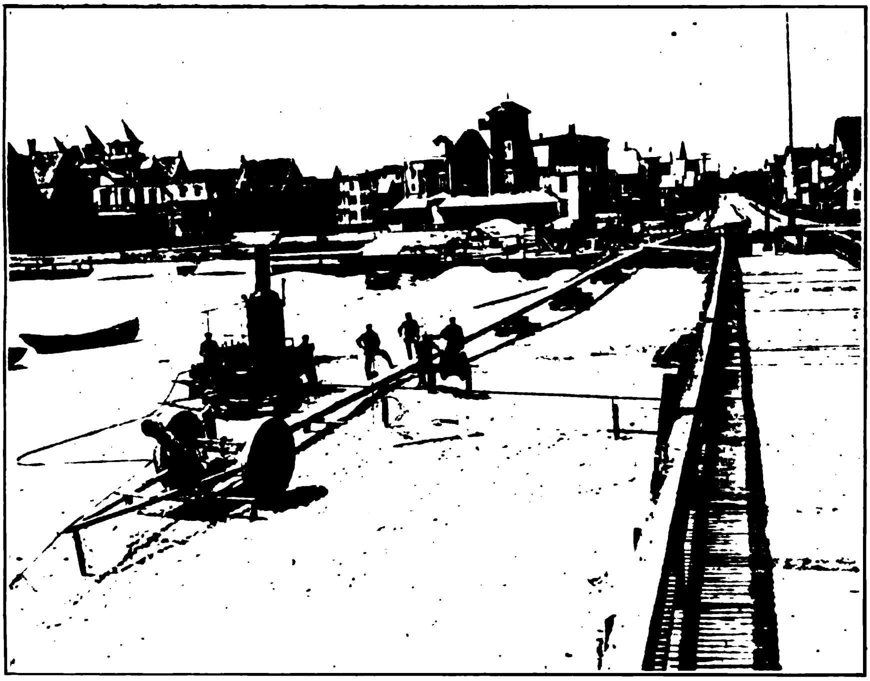
NEPTUNE TOWNSHIP: At this place, new sedimentation tanks and a sea outfall were installed. There are two return flow tanks, each 10 feet 8 inches in width and 83 feet long. The sewage, flowing through the tanks, travels a distance of 166 feet. It is then discharged into the Ocean by a 12-inch galvanized iron outfall at a point about 1,000 feet beyond low water.

POWERVILLE: Field & White Company. This company has a "rag mill" at Powerville, at which is manufactured a heavy "saturation felt paper." The material of which the paper is manufactured, consists of foreign and domestic rags. The foreign rags are disinfected before shipment, but the domestic rags are not disinfected. The rags are sorted and cut into small pieces. The rags are then mixed with water and beaten to a pulp, which is then pressed and rolled, producing the paper. Most of the liquid wastes are used over and over again, only a small portion being discharged into the Rockaway river about two miles above the intake of a large storage reservoir of the Jersey City water supply.

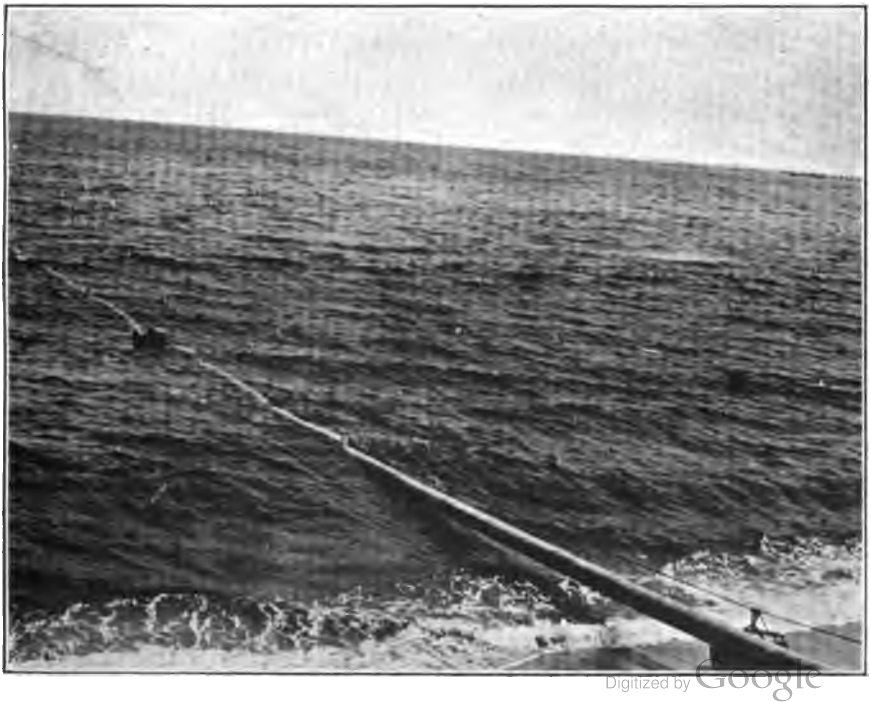
A sample of the wastes was analyzed and gave the following figures in parts per million:

TABLE 94.

	Raw Waste I	*In Solution* II
Total Solids	2039.	514.
Residue	863.	334.
Loss on Ignition	1176.	180.
Organic Nitrogen	100.	24.
Free NH_3	14.4	9.6
Albuminoid NH_3	21.2	4.8
Oxygen Consumed	276.	
Nitrites	Could not be read	.014
Nitrates	" " " "	.12
Chlorine	" " " "	106.



NEPTUNE TOWNSHIP: Launching Sea Outfall. (Courtesy of Mr. Pugh.)



NEPTUNE TOWNSHIP: Launching Sea Outfall. (Courtesy of Mr. Pugh.)

The bacterial figures were as follows:

	I	II
Bacteria per c. c. at 37° C.	54,000,000	50,000,000
Red Colonies per c. c. at 37° C.	6,000,000	6,000,000
Bacteria per c. c. at 20° C.	180,000,000	160,000,000

In both samples B. coli (Presumptive test) were present in 0.0001 c. c.

The solid material was very finely divided.

The engineer, employed to design the works, provided for a horizontal straining through cinders, and contact beds. This was considered unsatisfactory and, after disapproving the plans several times, giving advice and, finally a demonstration of the relative merits of cinder straining as opposed to sand filtration, plans were finally submitted, calling for settling tanks, contact beds, and sand filters, which were approved by the Board. It was, however, pointed out to the designing engineer that the large sedimentation basin was larger than was necessary and that the contact beds would be of doubtful value in treating the wastes. There is, therefore, considerable outlay of money in this plant not necessary at this time.

As constructed, the plant consists of an irregular shaped sedimentation basin, containing banks of cinders, through which the sewage flows horizontally. This basin has a capacity of 69,000 gallons, which is more than was necessary. From the sedimentation tank, the sewage flows to three contact beds, each 30 feet long, 15 feet wide, and 4 feet deep. The sewage is then discharged onto three natural sand filters, each about one-quarter of an acre in area. The sand is mixed with loam, and a low rate of filtration was considered advisable.

Princeton: Two additional sand filter beds were constructed during the year, at the Northeast disposal plant. These beds were each 90 feet square and 3 feet deep.

The existing Northwest sewage field should be reconstructed so that this imporatnt borough might have sewage disposal plants that would be satisfactory and sanitary.

RED BANK: After considerable effort on the part of the Board, this municipality reconstructed a portion of the sewage disposal plant. Provision was made for the disinfection of the sewage with hypochlorite of lime, and mixing, storage and dosing tanks This treatment was necessary, as the sewage is discharged about one-quarter of a mile from some oyster beds.

RIDGEWOOD: During the year, the contact beds at this place have been reconstructed. The old contact material was removed, washed and screened and, with new contact material in addition, was placed in the old contact and aeration beds, the latter of which had been of very little value. This greatly increased the volume of the contact material, though not to such an extent as is ultimately desired. Since the reconstruction of the beds, the plant has operated in a more satisfactory manner.

SALEM: A sewer system, consisting of about nine miles of sewers, a pumping station and hypochlorite treatment works have been constructed at this place.

SECAUCUS: At this place, a sewer system of about two miles in length and two sedimentation tanks have been constructed during the year. The sedimentation tanks are each 91 feet long, 10 feet 2 inches in width and 9 feet deep. Sewage is stored to a depth of 7 feet.

SPRING LAKE: A new sea outfall of 10 inch wrought iron pipe was constructed, for the purpose of discharging the effluent from the Brighton Avenue sedimentation tanks. This outfall discharges into the Ocean at a point about 700 feet beyond low water mark.

TRENTON: Agasote Millboard Company. The disposal plant for this factory was completed during the early part of the year. The sedimentation tank is 11 feet long, 8 feet wide, and an average depth of sewage of 6 feet. There are two contact beds, each 17 feet long, 10 feet wide and 3 feet deep. From the contact beds, the sewage flows to two land filteration beds, each 20 feet wide, 20 feet long, and 2½ feet deep. Unfortunately, although the plant had been designed to care for the wastes for several years, the industry increased so rapidly that when the sewage plant had been completed the amount of wastes had increased beyond all expectations and to a point beyond the capacity of the disposal plant. Experiments are now being made, for the purpose of reconstructing this plant.

West Collingswood: The Collingswood sewage disposal plant at this place has been unsatisfactory for some time during the past year and an attempt was made to improve conditions by constructing two additional contact beds. These beds are each 60 feet long, 40 feet wide, and 4 feet deep. Changes were also made in the settling tank, as the dividing wall broke while one of the tanks was being cleaned.

Westfield: At this place, the sewage disposal plant has been greatly improved by the construction of a new screen chamber, a double compartment Imhoff tank and two new sand filters. The Imhoff tank consists of two circular compartments, across which is a single rectangular settling basin. The two sludge compartments are circular and are 25 feet in diameter. The upper portions of the circular compartments are 34 feet in diameter. The single settling basin crossing the circular tanks is 26 feet wide and 70 feet long. The new sand filters are each about 190 feet square and 3½ feet deep.

Wildwood Crest: A main collecting sewer system, two pumping stations, two sedimentation tanks and hypochlorite disinfection apparatus have been installed at this place. There are two sedimentation tanks, one 4 feet wide and the other 8 feet wide. Each tank is 30 feet long and stores sewage to a depth of 6 feet. The ejectors have not operated in an entirely satisfactory manner, as the flow of sewage was much greater than was anticipated.

SEWERAGE WORKS UNDER CONSTRUCTION.

At the present time, sewerage works are under construction at the following places:

TABLE 95.

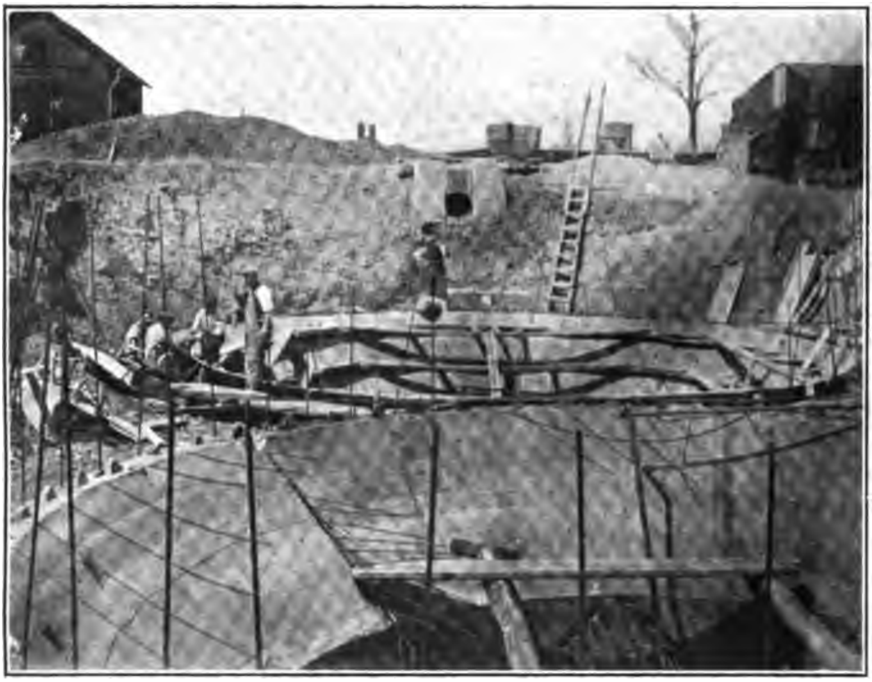
Sewerage Systems	*For*
Audubon	**municipality**
Caldwell	**"**
Fairview	**"**
Fort Lee	**"**
Hammonton	**"**
Princeton University	**university and borough**
Sea Isle City	**municipality**

Sewage Disposal Works.	*For*
Audubon	**municipality**
Butler	**Pequannock Paper Company**
Caldwell	**municipality**
Fairview	**"**
Hammonton	**"**
Highlands	**East View Hotel**
Lakewood	**municipality**
Moorestown	**"**
Princeton University	**university**
Roebling (sludge bed)	**municipality**
Sea Isle City	**"**
Wenonah (2 disposal plants)	**"**
West Englewood	**"**

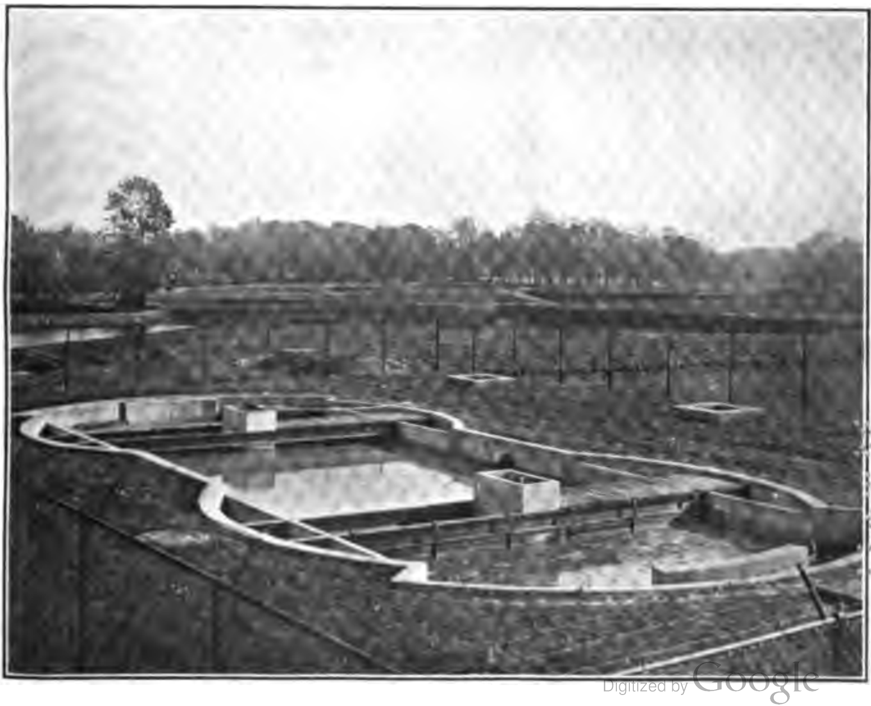
APPLICATIONS FOR INJUNCTIONS.

NEW BRUNSWICK: It being ascertained that this municipality was constructing sewers without submitting the plans to the State Board of Health for approval, a bill to show cause and restraining order was obtained from the court and the work was stopped on December 14, 1912.

MONMOUTH BEACH: This municipality constructed a storm sewer system and were connecting house drains to it, for the purpose of removing sink and toilet wastes. Upon application to the court, a bill to show cause was served upon the municipality. The latter, through their attorney, filed a stipulation, stating that the storm water system would not be used for the discharge of household wastes.



WESTFIELD: Imhoff Tanks.



WESTFIELD: Imhoff Tanks.

OZONE TREATMENT ON SEWAGE AT TRENTON, NEW JERSEY.

In the early part of 1913, a sewage disposal plant, in which ozone was to be the chief oxidizing agent, was installed, for the purpose of treating the sewage from the Municipal Hospital at Trenton. The company, contracting for the installation of this device, had originally proposed to install a larger and similar plant to treat a portion of the sewage of the whole city. Such plans were presented to the State Board of Health. The company guaranteed, to the city, that not only would the sewage be settled and disinfected, but that the effluent would be oxidized and non-putrescible.

The disposal plant consisted of a circular tank of a modified Imhoff type with a central ventilating well from the sludge compartment. The tank was built of steel and was divided into sectors by vertical, radial, steel walls, the flow of sewage being alternately toward the outer wall and then toward the inner wall. In the last sector, provision was made for adding the ozone to the settled sewage. Information, relative to the quantity and concentration of the ozone, could not be obtained. The sewage received a much larger period of settling than seemed necessary. being from ten to fifteen hours and on leaving the tank, was black in appearance.

Unfortunately, it does not appear that the expectations of the company have been realized. The following report of Mr. A. C. Gregory, city engineer, led to the abandonment of the plant as far as the ozone process was concerned:

> "I wish to call your attention to the Sewage Disposal Plant built at the Municipal Hospital. The plant was built at a contract cost of $1750 and went into operation on or about January 21st of the present year. By the terms of the contract between the City and the contractors, a period of thirty (30) days was to elapse, before any payment of the cost of the plant was to be made. If during such thirty (30) days, the plant worked to the satisfaction of the Engineer of Sewers and Water, one-half of the contract price was to be paid. The remainder was to have been

paid at the expiration of sixty (60) days upon certification by the Engineer that the plant was satisfactory in every detail.

"From the first, the plant has not been satisfactory, and upon the expiration of the sixty days cited in the contract, further time was granted the contractors in order to give them everything fair in the way of opportunity to demonstrate the efficiency of the plant.

"A Sewage Disposal Plant, such as is required at the Hospital, should render an effluent that is at least non-putrescible.

"The machinery of the plant should work smoothly and constantly.

"While we have made no chemical or bacteriological tests of the effluent, it is evident to the senses that a condition of non-putrescibility of the effluent has not been attained. It, very shortly, after being exposed to the air becomes septic in appearance and at times has been an extremely mal-odorous feature of the atmosphere in the neighborhood of the hospital. The Hospital and Township authorities in addition to the neighboring residents have made many complaints of the evil, smelling effluent.

"There has been nothing approaching constancy of operation of the pumping machinery. Breakdowns have been frequent, at which times, the sewage has accumulated in the sedimentation tank, backed up in the sewer connections and caused a large amount of annoyance and anxiety on the part of the hospital authorities.

"By way of relieving such conditions, the writer has on several occasions taken laborers to the hospital and pumped the tanks out by hand. At the present time complaint is reaching this office that the sewage pump is not doing its work properly and that it is only a question of a few days before the machinery will once more have to be overhauled and coaxed into doing the work.

"In short, the work of the plant has been unsatisfactory and there is little to indicate that it will give us satisfaction in its present shape.

"The writer, therefore, respectfully suggests that steps be taken to have the contractors, in accordance with the terms of their contract, remove the plant, or such part of it as may be unsatisfactory and inadequate, in order that relief may be given the hospital authorities from the present intolerable conditions."

DATA RELATING TO WATER TREATMENT PLANTS.

The following tabulation of data relating to the treatment of water in the State of New Jersey gives, in condensed form, engineering information relating to the design and operation of the water treatment plants within the State. There is also included in the tabulation the names of municipalities in which treated water is supplied to the inhabitants.

WATER WORKS ACTED UPON AND REPORT OF INSPECTIONS.

ALLENDALE: On June 3, 1913, plans for a water distribution system at this place were approved, with the proviso that hydrants or other "blow-offs" be placed at all dead ends of pipe.

BELMAR: On February 11, 1913, extensions to the water system were approved, with the proviso that hydrants or other "blow-offs" be placed at all dead ends of pipe.

BERNARDSVILLE: On February 25, 1913, a chlorine gas disinfection apparatus was approved as an experimental installation, as there was only a small amount of data available in reference to this process, but such data appearing to prove that the method was satisfactory.

BOUND BROOK: On April 15, 1913, plans for a pressure water filtration plant were approved, with the proviso that a coagulation basin, alkaline solution apparatus, and automatic chemical feed devices be installed. The reasons for these conditions are explained in the report of the engineer of the Board, from which we quote as follows:

> "Submitted herewith, are plans of a proposed water filtration system for the Borough of Bound Brook. The plans contemplate the installation of four pressure filters, which are to be placed below the reservoirs and upon the main supply pipe of the Borough. This type of plant was chosen because of the fact that it would be considerably cheaper than the installation of gravity filters, which would necessitate, at times, pumping the raw water from the reservoir onto the filters or a loss of about 30 feet of head, which it is claimed is required for service in the Borough.
>
> "The water from the reservoir in the proposed plans will flow naturally onto the fiters, under a head of about 40 feet, and after being treated with aluminum sulphate, it will be almost immediately thereafter passed through the filters and thence to the main supply pipe to the Borough.
>
> "There are, in this proposed scheme, several weak points. The raw water is at times low in alkalinity and, for this reason, it is probable that, at times, the proper coagulation in the water could not be obtained with the alum unless ma-

chines or apparatus are provided so that a soda solution which will artifically supply the necessary alkalinity is provided. It will also be necessary, in my opinion, to provide coagulation basins, so that a proper interval of time will be given for the chemicals to react and to precipitate. Such a coagulation basin would have a tendency towards reducing the turbidity and the bacterial count, and unless such a coagulation basin is provided I very greatly fear that, at times of high turbidity, the filters will have to be washed with such frequency that the operator will be tempted not to waste his water for a sufficient time, and thus run some danger of permitting polluting material to pass through the filters. There is also some danger that aluminum hydrate will be carried through the filters into the distributing pipes, which would be objectionable if it occurred with any frequency.

"The rate of filteration will depend altogether upon the rate of consumption of water in the Borough. This will mean that on wash-days and when the water is used for fire purposes the filters would be operating under adverse conditions, and I feel that it would be advisable to have some automatic arrangement so that the disinfecting chemicals and coagulating chemicals could be properly proportioned according to the draught upon the filters. This feature could also be remedied to a large extent by the construction of a filtered water reservoir, which would store the filtered water and allow the filters to work at a uniform rate. You can, therefore, see that the operation of this plant is a very important item in the production of a satisfactory water.

"For the best results obtainable from such an installation, it would be necessary to have a qualified person in direct charge of this plant, who could make tests of its efficiency and of the nature and quality of the waters being filtered at the plant, and immediately change the operation of the water in accordance with the results of these tests.

"There is a certain extenuating circumstance in connection with this water filteration plant, which is that the watershed is not densely populated, but, even with a small population which dwells upon the shed, it is possible that a very disastrous pollution might take place and, because of the smallness of the watershed, reach the consumers of the water in a very short time. It is also probable that, in the near future, the population on this watershed will increase.

"If the plans should be approved by the Board I feel that they should be approved with the provision that a coagulation basin be installed; that apparatus for the addition of a soda solution be incorporated in the work, and that the apparatus which controls the quantity of chemicals added be made automatic in operation, so that they may deliver a quantity of chemical in direct proportion to the quantity of water being filtered.

"I also feel that it would be advisable for the Board to make clear, at this time, that if the operation of this plant is not satisfactory that the Company will, whenever required by the Board, employ some qualified chemist or bacteriologist, or engineer, who will remain at this plant at all times, and make such tests as are necessary for its satisfactory operation."

Inspections of the work of construction were made on July 17, and October 29, 1913.

CAPE MAY POINT: An inspection of the water works, at this place, was made on April 21, 1913.

CRANBURY: On February 15, 1913, an inspection was made of this water plant, in order to obtain information in reference to a proposed plant for the removel of free carbonic acid. On February 18, 1913, permission for the construction of the proposed works was given by the Board.

DOVER: On February 27, 1913, at the request of the borough officials, this place was visited for the purpose of advising as to the development of the watershed, and the following report was later transmitted to the officials:

> "The watershed comprises the headwaters of Wallace Brook, which is a branch of Jackson's Brook. The shed is about a half square mile in area, and is at the present time developed by the use of infiltration wells from springs. There are fifteen of these wells, three or four of which are not in use, because analyses made by representatives of this Board, showed them to be polluted, or at least questionable in quality. These so-called springs are walled up wells, about three feet square, and about four or five feet deep. There is little doubt that the water collected in these wells is almost wholly surface water. This was shown, at the time of our visit, by the turbidity of the water in the receiving basin. The turbidity was reported to have been caused by the flow from a single well which could not very well be cut out of the supply without greatly reducing the quantity of available water. The turbidity was also probably due to the fact that rain was falling at the time, and, in all probability, surface water was running into the spring, carrying silt or clay particles which occasioned the turbidity. I think that this may be taken as sufficient evidence that the water from the shed reaches the reservoir shortly after being deposited as rain. For this reason, it appears to me that water from this shed should be very carefully treated before being distributed to the inhabitants, as any pollution occurring in the watershed would be very quickly carried to a point where the whole water supply of the town would be contaminated.
>
> "As to the watershed itself, there are reported to be thirty-three houses, from which it is estimated that there are about one hundred and thirty inhabitants. This would be at the rate of two hundred and sixty persons per square mile, which is a heavy population for any area used as a source of potable water.

"The water commissioners of the town propose to buy certain properties within the watershed and to remove therefrom two of the houses, from which pollutions could most directly reach the stream. This is very commendable, but I do not feel that the commissioners, even with the precautions to be taken, would be warranted in calling the water supply safe. This is because of the fact that, with thirty-one houses remaining and a distance of approximately half a mile from the intake accidental pollutions could reach the water supply in a very short time.

"From data, contained in the report on water supplies of New Jersey and published by the New Jersey Geological Survey, it would seem that the amount of water which may be obtained from this shed during the dry months of an ordinary dry year would be about 110,000 gallons per day. The average yield, however, for the year would be about 400,000 gallons per day. In dry seasons of a dry year the amount of water will be, at times, as low as 70,000 gallons per day. It would, therefore, seem that with a watershed of this character and with such a small flow it would be necessary to treat the water in some manner, in order to prevent contamination. It is also questionable, in my mind, whether the expenditure of an amount of money, which will be necessary on this watershed, would be advisable. Dover is growing rapidly and is at the present time entering upon an industrial growth, which will tend to greatly increase the population. Comparing the growth of population at Dover to that of Plainfield and Morristown, cities which are somewhat larger than Dover, and between which it would be expected to derive a rate which would be applicable to the growth of Dover, it appears, if Dover increases at the same rate as Plainfield has, for the last 20 years, it would, in 1930, have a population of approximately 17,000 people. Plainfield, however, has certain advantages which the Town of Dover has not, though, in other respects, it is nearly the same. If the rate of growth at Dover were the same as Morristown, for the last 20 years, it would, in 1930, have a population of about 11,000 people. Morristown, however, is more of a residential municipality and has very few industries, therefore, as lying between the rates of growth of Plainfield and Morristown, I have estimated that, in 1930, Dover will have a population of about 14,000.

"The present water consumption in Dover is about 50 gallons per capita, but it is altogether probable that, with the increased length of water mains and with the installation of a complete sewerage system, the per capita consumption will be about 100 gallons per day. This will mean, if our assumptions are accurate, that, in 1930, the total water consumption of Dover will be about 1,400,000 gallons. It will, therefore, be seen that the present development on Wallace Brook will form only a very small part of the water supply, and it will then become necessary either for Dover to obtain some additional surface supply, or to increase the quantity of water derived from its wells.

"It might be well to indicate, at this point, the fact that, ten years from now, water supplies, free from contamination, will be much harder to obtain than at present. It,

> **therefore, might be advisable for the Town of Dover to employ some qualified expert to report upon their present water supply and the advisability of increasing the supply from wells, softening the water or obtaining a surface supply sufficient for future use, either from uncontaminated sources or by the installation of a filtration plant.**
>
> **"However, to return to the watershed, at present under discussion, it would appear advisable either to divert the flow of water coming from the roads, to a point below the intake of the reservoir, or to rely upon sedimentation and filteration of the water. In the former case it would be necessary to very carefully patrol the watershed and in addition retain the hypochlorite treatment which of course has its limitations and does not improve the quality of the water with respect to pollutions other than to reduce the number of bacteria, and for this reason would not be altogether satisfactory.**
>
> **"I would say, in this connection, that possibly for five or six thousand dollars a filtration plant could be installed above the reservoir. Even, with the installation of such a filtration plant it would be necessary to maintain a hypochlorite treatment plant, though the quantity of hypochlorite used might be reduced to some extent. If the reservoir were so adjusted that a storage period of ten days were obtained, it would permit the storage of water for use during a dry period. This could be done by arranging the intake and outlet of the reservoir so that the flow through the reservoir would be uniformly distributed and, by arranging the outlet of the reservoir so that it would simply overflow from the reservoir into the distributing system, it would then be possible, when large quantities of water are derived from this shed, to let it overflow and store in the other reservoir on the opposite hill."**

FLEMINGTON: On July 22, 1913, plans for a pressure water filter were disapproved. As this problem presented some unusual features, it will be of interest to present them.

An inspection was made on May 28, 1913, and a second inspection on July 14. During these inspections, the following information was obtained:

> **"Inspections disclosed the fact that there were four separate sources of water supply in Flemington. The best of these, from a bacterial standpoint, was a driven well, 405 feet deep, which appeared to be uncontaminated. A second supply is that derived from an old copper mine, the water from which is pumped to the reservoir. This water showed pollution, as indicated in the accompanying table. The main source of supply, taken from the South Branch of the Raritan River, appeared, from the analyses, to be polluted to some extent, and this river is naturally liable to pollution. Most of the analyses heretofore appear to have been made upon the combined water as it is served to the consumer. These analyses,**

for a period of two years, have shown coli in dilutions as low as 0.1 c. c. quite frequently, and at other times, the colon bacillus has been absent. Because of these analyses, the conclusion was evidently reached that the river water was the polluted source of supply, and plans for a filtration plant were submitted, for the purpose of purifying the river water by filtration before delivering it to the consumer. In this filtration plant, it was proposed to use the reservoir water from the other supplies for the purpose of washing the filters.

"By the investigation, made on May 28th, it was discovered that the most badly polluted source of water supply was from eight springs, or wells, located west of the town. These wells provide a continuous supply of water, which varies very greatly in quantity. The overflow from the springs is admitted to a pipe line, by which the water is carried to the reservoir. It would appear, from the data collected at this time, that the pumps at the river intake are operated continuously, but that the pumps for the mine water and for the deep well are used only in case of shortage of water.

"As the analyses of the water collected on May 28th showed the wells to be badly polluted, it was considered advisable to collect other samples from them, in order to determine whether all or only some of the wells were being polluted. Samples of water were, therefore, collected on June 30, 1913, which, by analyses, seem to indicate that the well, designated as No. 8, was the one receiving the most polluting material.

"On July 7th, a sanitary inspection of the wells was made, and the following data collected:

"Well No. 3 is constructed with walls of open stone work, no cement being used for the joints, except for about a foot at the top. The whole well is covered with a wooden cover, with spaces between the boards. The only apparent liability of pollution is from a road and ditch about 4 feet away and, possibly, by subsurface seepage from the buildings, consisting of a house, pig-pen, privy and barn on the opposite side of the road. This latter source of pollution, however, would appear to be rather remote. The top of this well is flush with the ground.

"Well No. 1 is constructed of 24 inch terra cotta pipe, set one upon the other. At the time of inspection, there were 3½ feet of water in the well. The joints in the terra cotta pipe appeared to be cemented, so that the only entrance for water is at the bottom. The curb of this well is about one foot about the ground, and the top is covered with an open wooden cover. The only liability of pollution is from the road, about 15 feet away, and from cattle, which might stand alongside of the well.

"Well No. 2 is constructed at the botton of stone walls, with cement joints, having three lengths of 24 inch terra cotta pipe built upon them. Below the terra cotta pipe, the well is only 18 inches in diameter. The top of this well is 6 inches above the ground and has a wooden cover, similar to those described above. Alongside of this, there is a tub, which appeared to be used for watering cattle. The roadway is 25 feet from this well.

"Well No. 7 is constructed of open stone walls and cattle have been pastured almost alongside of the well. The cover of this well is old and rotten and has large openings in it.

"There is also an old well in the front yard of the house. At the present time, this well is dry, but it is reported that it was formerly used as a source of water supply until well No. 3 was dug, which drained it. It might be possible for this well to receive drainage from the house, pig-pen and privy, which are located above it, but the general trend of the ground is away from the well.

"The wells mentioned above, Nos. 1, 2, 3, and 7 drain to a collecting basin, designated by the letter A. It is constructed of stone and brick walls, roughly plastered inside, and has an earth bottom of the same character as the wells. It is reported that there is a spring at the bottom of this basin, but a sample of water therefrom could not be obtained. Very little or no water was passing from this basin to the reservoir. The basin has a concrete roof, which is of rather poor quality, and the manholes on the basin extend 8 inches above the roof. The manholes have wooden covers with a square opening, covered with wire for ventilation. The water, collected in this basin, flows, by gravity, to another basin, designated as B, and from there flows to the main pipe, carrying the water to the reservoir. The outlet and inlet are 6 inches above the bottom, which is of earth. The walls are constructed of brick and are plastered inside. On the north side of this basin, a terra cotta pipe enters, the purpose of which could not be ascertained.

"Wells Nos. 4, 5 and 6 are located on the opposite side of the road from those already described. Well No. 4 is constructed of open stone walls, has an earth bottom and is covered with boards. This well is in a location which would make it liable to pollution from the barnyard and, possibly, from the privy and pig-pen above mentioned. The manure pile of the barn is about 80 feet north of the wells, and the natural drainage would be from the refuse into the wells. This well is also in a situation where people would walk across it frequently and it would, therefore, be possible for it to be polluted by filth from shoes, etc.

"Well No. 5 is about 10 feet from well No. 4 and is constructed with open stone walls and covered with a wooden cover, similar to well No. 4. On this well, there is a hand pump from which the water used in the dwelling and barn is obtained. This occasions a liability of pollution from people walking across the wooden cover, and there is a further source of pollution from a watering trough which is, in part, on top of the well.

"Well No. 6 is similar to wells No. 4 and No. 5. A watering trough was beside the well and was evidently used for the purpose of watering cattle. This well is less liable to pollution than wells No. 4 and No. 5, and, possibly, the only source of pollution would be from animals. The water from wells No. 4, 5 and 6 is collected into a pipe which joins the main supply pipe below collecting basin B. Water from these wells, or so-called springs, flows, for about a mile, through what appears to be a terra cotta pipe line. Whether this terra cotta pipe line runs for any great distance from the wells is difficult to say, as the superintendent of the works seemed to think that it was mostly iron pipe.

"At a point, about a mile below the wells, the main pipe line crosses a small brook or watercourse, alongside of which, and just on top of the pipe line, is constructed another collecting basin, designated as D. Up the watercourse, about 50 feet from basin D, is located spring No. 8. This spring, from the analyses made on June 30th, was the one most badly polluted. On the main supply pipe as it passes under basin D, a tee has been set with a strainer, which takes in water that seeps into the basin, and spring No. 8 is connected, by a pipe line, with basin D. About 400 feet above basin D, is located a large farm, having a house, privy and large barnyard, the drainage from which would naturally pass very close to spring No. 8, and, by the nature of the construction of basin D, much of it would enter that basin. Basin D is constructed in the bottom of the watercourse, the bottom being below that of the watercourse. The basin is constructed with brick walls, earthen bottom and has a loose wooden cover. Formerly, the basin was plastered inside, but much of the plaster has fallen off or has become loosened, so as to be of no value. In the brook, just above basin D, cow manure had fallen into the watercourse, and thus would, no doubt, tend to pollute the water in the basin.

"Well No. 8 is located up stream from basin D, and is about 15 feet from the watercourse. This well is 5 feet deep, 4 feet long and 3 feet wide.

"Because of the fact that the weather has been so dry, it was almost impossible to trace the drainage directly from the wells to the barnyard, but at one or two points pools of water, dark in appearance, having the general aspect of barnyard water, lay in the watercourse, and was evidence that, at times, this drainage would naturally run into basin D, and, at the time of inspection, was probably contaminating the supply by entering spring No. 8 and basin D by some subterranean course. After leaving basin D, the water enters another basin, designated as C, and, from there, passes to the main reservoir. The purpose of the several collecting basins, A, B, C and D, is difficult to understand, as their only possible use would be for settling out mineral matter. The outlets seemed to be too near the bottom for any effective use in this manner.

"Samples of water were taken for analyses on each of the three visits.

ANALYTICAL DATA.

"On May 28th, samples from each of the four general sources were taken at the four discharge pipes into the reservoirs, and the bacteriological work started at once on the field, samples for chemical analyses being brought to the Laboratory. The heavy rain on this date assisted in detecting pollution from surface wash. These samples were numbered

W-9589 to W-9592. The results of these tests showed each supply to be of good quality from a chemical standpoint, while all but the deep well showed evidence of pollution upon bacterial examination. The water from the springs, or, more properly speaking, wells, being especially bad (see table of results column I). This altered the problem of filtration as it was previously supposed that only the river water was in need of treatment. These results, however, indicated that the deep well supply alone was free from B. coli.

"On June 30th, a 100 c. c. sample was taken from each of the 8 wells, described above, from basins A, B and C, from the mine supply and from the river, the samples being taken near the source of supply in each case. The planting of the samples was done at the Laboratory within three or four hours after taking. These results proved a good check on the previous tests and threw light on the condition of the wells. All those located on the farm of the water company, numbered 1 to 7, and the basins A and B associated with them, gave results such as might be expected from shallow, imperfectly covered wells (see table of results, column II).

"It should be noted that these samples were taken after some weeks of dry weather and the water in all the wells, except 2, 5 and 8, was below the level of the outlet pipes. The water in basins A, B and C, therefore, was from these three wells. These samples were numbered G-6251 to G-6264, omitting G-6261.

"It was evident that, while all the wells furnished a questionable supply for potable purposes, the heaviest pollutions appeared to occur near well No. 8 and basin C.

"On July 7th, in addition to the sanitary survey of the watershed, samples were taken from basins A and C, wells Nos. 5, 6 and 8, and from the newly discovered basin D, located between well No. 8 and basin C. As noted above, this basin is located in polluted watercourse and the tests confirmed its quite evident contamination (see table of results, column III).

"It is probable that most of the contamination comes from basin D, rather than well No. 8, as there seems to be very little flow from the well, but a considerable supply at D. The results of these tests may be grouped into the following summary:

SUMMARY.

"As can be observed from the table which accompanies this report, positive presumptive tests for B. coli have been obtained when using Lactose Bile media, in proportions of 10 in 1 c. c. from the composite well water, and in proportions of 8 in 10 c. c. from the mine water. Positive tests have also been obtained from the river water in dilutions of 1 to 100. Examinations, which have thus far been made of the deep well water, have not disclosed the presence of B. coli. It thus appears that, of the four general sources of supply now in use by the Flemington Water Company, only the deep well is not receiving polluting material. The mine supply and the springs or wells are of doubtful purity, while the river is probably unsafe as a water supply without filtration or chemical treatment.

"As has been mentioned above, the two places, at which the springs or well supply seems to get most seriously contaminated, are at well No. 8 and basin D. It is possible that, by discontinuing the use of well No. 8 and basin D, the spring supply would be considerably improved. It is apparent, however, that the supply of water would be considerably reduced.

"In conclusion, we wish to state that, in our opinion, water from all the sources of supply, with the exception of the deep well, should be treated before being supplied to the consumers. We are moved to this consideration by the fact that the 'springs' supply is, at the present time, badly polluted. Several of the wells are so located as to be potentially dangerous and liable to pollution, that the river supply, while not so badly polluted, judging by the present analyses, is likewise potentially dangerous, because of the fact that a sewage disposal plant, at Glen Gardner, is located in the shed and the further fact that several municipalities are also situated thereon, and that, inasmuch as the drifts of the old copper mine are reported to extend under the town to some extent, and, as the analyses show considerable pollution, that, in the absence of more definite knowledge of these facts, it should be treated as a supply liable to pollution from underground sources."

TABLE 97.—RESULTS OF BACTERIOLOGICAL TEST OF THE WATER OF THE FLEMINGTON WATER COMPANY.

May, June, July, 1913.

SOURCE.	Tests of May 28, 1913. Rainy.				Tests of June 30, 1913. Fair and Dry.				Tests of July 7, 1913. Fair and Dry.			
	Bact. per c.c. at 20°	Bact. per c.c. at 37°	Red Colonies per c.c.	Presumptive test, B. coli indicated in	Bact. per c.c. at 20°	Bact. per c.c. at 37°	Red Colonies per c.c.	Presumptive test, B. coli indicated in	Bact. per c.c. at 20°	Bact. per c.c. at 37°	Red Colonies per c.c.	Presumptive test, B. coli indicated in
Well No. 1				c.c.	50	6	0	c.c. 1.				c.c.
Well No. 2					32	8	2	Absent in 1.00				
Well No. 3					330	100	46	0.1				
Well No. 4					300	40	9	.01				
Well No. 5					50	25	1	0.1	100	50	2	1.
Well No. 6					130	54	1	.01	6	36	0	Absent in 1.
Well No. 7					300	100	8	0.1				
Well No. 8					2,500	5,600	50	.01	2,250	2,000	600	.01
Basin A					16	5	0	Absent in 1.	200	70	4	Absent in 1.
Basin B					250	56	1	0.1				
Basin C					20,000	6,500	1,200	.01	600	500	40	0.1
Basin D									500	620	230	.01
Mine	46	7	1	8 in 10	70	20	2	10 in 1				
River	270	30	0	0.1	600	100	2	.01				
Deep well	40	1	0	Absent in 5.								
Composite from well taken at reservoir	8,500	1,200	210	10 in 1								

NEW MILFORD: Hackensack Water Company. On July 22, 1913, plans for the construction of eight gravity mechanical, sand filters, were approved. An inspection of this work was made on July 10, 1913.

JERSEY CITY: On April 15, 1913, plans for the hypochlorite disinfection plant at Boonton, were approved. An inspection of this plant was made on April 9, 1913.

LAKESIDE PARK: On December 3, 1912, plans for an iron removal plant, were approved.

MAPLE SHADE: On February 11, 1913, plans for an iron removal plant, were approved. An inspection was made of this plant on February 5, 1913.

NEWARK: On July 29, 1913, plans for a chlorine gas disinfection plant, to be installed at Macopin, were approved. On July 22, 1913, an inspection of the water works was made.

NEW BRUNSWICK: On December 31, 1912, plans for a water purification plant for this place, were approved. Unfortunately this plant has not been constructed.

NEW LISBON: Burlington County Asylum. On December 31, 1912, plans for a pressure water filter, were held in abeyance, as they were unsatisfactory in several respects.

POMPTON LAKES: On August 12, 1913, plans for a water supply system, were approved, with the proviso that hydrants or other "blow-offs" be installed at all dead ends of pipe. An inspection was made at this place on May 19, 1913.

RAMSEY: On May 19, 1913, an inspection was made of the water works under construction at this place.

SKILLMAN: On July 29, 1913, plans for an additional gravity, mechanical filter and hypochlorite disinfection apparatus, were approved. Inspections of this work were made on October 2 and 22, 1913.

STANHOPE: On August 30, 1913, an inspection was made of the water works under construction at this place.

TRENTON: Several inspections have been made of the water filtration plant under construction at this place.

WOODBURY: On June 3, 1913, plans for an artesian well water supply, were approved. On September 2, 1913, plans for a gravity, mechanical, filter plant, were approved. Inspections were made at this place on June 3, and September 2, 1913.

WATER WORKS CONSTRUCTED DURING THE PAST YEAR.

BOUND BROOK: Four pressure water filters have been installed. Data, relative to this filtration plant, will be found in the tabulation of Water Treatment Plants.

BRIDGETON: The gravity, mechanical filtration at this place was completed during the past year. The plant consists of a coagulation basin, 67 feet long, 29 feet wide, and 14 feet deep, six gravity, mechanical, sand filters, 12 feet wide, 14½ feet long, and 48 inches deep, and a clear water basin, 72 feet long, 42 feet wide, and 11 feet deep.

CRANBERRY: A lime dosing apparatus was installed, for the purpose of reducing the carbon dioxide in the water and incidentally reduce the iron content of the water.

HACKENSACK: Eight new sand fiters, each 26 feet wide and 46 feet long, were constructed at this place. The capacity of the clear water well was also doubled.

RAMSEY: There has been constructed a new water supply system. The supply is derived from a large infiltration well located in a small watershed.

SEWELL: There has been constructed a water supply distribution system. The supply is derived from artesian wells.

SKILLMAN: A duplicate gravity, mechanical, sand filter unit has been constructed. Plans for a hypochlorite disinfection apparatus, were also approved, but this portion of the plant has not been installed.

SPECIAL REPORT TO THE SENATE.

At the request of the Board, a special report, in reference to the water supply of the City of Trenton, was prepared. This report is more fully commented upon in the previous pages of the report.

TABLE 98.

List of municipalities and companies notified to improve water supplies:

Allentown.—Notified to improve supply, September 7, 1912.
Bernardsville (Bernards Water Co.)—Notified to improve supply August 27, 1912.
Frenchtown (Frenchtown Water Co.)—Notified to improve supply October 22, 1912.
Hampton (Junction Water Co.)—Notified to improve supply June 25, 1912.
Lambertville (Lambertville Water Co.)—Notified to improve supply January 14, 1913.
Lumberton (Lumberton Light, Water & Sewerage Co.)—Notified to improve supply June 25, 1912.
Medford (Medford Water Co.)—Notified to improve supply June 25, 1912.
Millville (Millville Water Co.)—Notified to improve supply December 17, 1912.
New Brunswick.—Notified to improve supply Jaunary 28, 1913.
Orange.—Notified to improve supply December 17, 1912.
Pemberton (Pemberton Township Water, Sewerage & Light Co.)—Notified to improve supply June 25, 1912.
Pluckemin (Superior Yarn & Thread Co.)—Notified to improve supply May 6, 1913.
Rockaway.—Notified to improve supply April 16, 1912.
Vincentown (Vincentown Water Co.)—Notified to improve supply June 25, 1912.
Wrightstown (Wrightstown Water, Electric Light & Sewer Co.)—Notified to improve supply Jaunary 14, 1913.

The various conditions and causes leading to the above actions of the Board, are contained in the report upon the operation of the water supplies of the State.

RULES AND REGULATIONS FOR THE SUBMISSION OF PLANS.

After experiencing much inconvenience and trouble because of the fact that sufficient data was not given with plans for sewerage of water works presented for approval, the State Board of Health, on June 23, 1913, adopted a set of "Rules Governing the Submission of Sewerage and Water Works Plans to the New Jersey State Board of Health." These plans were prepared by this section of the Division of Foods, Drugs, Water and Sewerage. A more complete account of this work and a reprint of the rules will be found in the previous pages of this report.

NEW FORM OF APPROVAL ADOPTED.

Because of the fact that the wording of the official approval of the Board did not seem to make clear the responsibilities of the party for whom the plant was constructed and their agents, a new form of approval was adopted.

There appeared to be three things which were not generally understood by the persons for whom plans were submitted; first, they did not understand that, should any extensions or additions be made to the works as approved, such additions should be submitted to the Board for supplementary action; second, that, should any material changes in the plans or specifications be made, such changes should receive the approval of the Board; third, that the municipality or persons for whom the works are constructed, together with their agents, are responsible for the proper construction of the plant in accordance with the plans and specifications, and are also responsible for the proper operation of the plant after construction.

For these reasons, the following form of resolution was adopted:

Resolved, That the plans and specifications for............ works at.............be approved, subject to such conditions of construction, operation, and purification as this Board may from time to time require, and *further provided* that all changes and amendments or any extensions of, or additions to the works, be submitted to this Board for their approval before such changes are actually made, and that the plant be properly constructed and operated by the municipality or persons for whom the plans are approved, or their agents.

Later, it was noticed, and is here mentioned as an interesting coincidence, that, in the recently published report upon the disposal of sewage at Rochester, New York, the approval of those works, given by the New York Commissioner of Health, printed on page 121 of the report, is very similar in purport and substance to the form adopted by this Board.

Evidently, this form of approval has been the result of the experiences of two independent bodies, working under different conditions.

Report of the Bureau of Vital Statistics.

DAVID S. SOUTH, STATE REGISTRAR.

Many facts will be found in the tables published in the Report of the State Board of Health for the present year which justify the fact that the general health administration of the state, both central and local, is reflected in a diminishing death-rate.

There will always be need for a better registration of vital statistics, and after a fight covering a period of fifteen years to perfect the marriage laws of New Jersey, we have at present a law which is eminently satisfactory, however the importance of complete birth registration looms larger each year.

At the last session of the legislature a law was passed giving a state pension to widows, with one or more children, under a certain age, and this act has caused a lively demand for certified copies of records of births to be used in the prosecution of these pension claims, fortunately there is a clause in our law pertaining to vital statistics which authorizes this department to furnish these certificates free of cost, however no additional clerical assistance has been furnished to help with this work.

In addition to the pension law above referred to, the Department of Public Instruction is authorized. under a recent law, to require in particular cases evidence of the age of certain children, in the form of a duly attested transcript of the record of birth filed according to law with the state or local registrar, and we are informed that the enactment of this law was the result of suggestions made by a commission representing various states, and is in line with unform laws regarding education.

This last named law has also added considerably to the work of the Bureau of Vital Statistics in furnishing certificed copies of such births, and it is hoped that these added demands and the popular use of such records will eventually crystillize public sentiment to the point where failure of a physician or midwife to properly report a birth occuring in their practise will mean public disgrace, as well as the usual fine provided by law for such violations, and in addition to this there is no doubt that public sentiment when manifested will result in our law makers giving more careful attention to this important branch of state government by the enactment of strict laws demanding the filing of all such records, and providing sufficient clerical force for their proper study and presentation for public use.

Some of the most effective work that can be done in behalf of public health in this state to-day lies in the prevention of infant mortality, and the necessity of birth registration for the study of this purpose is well recognized.

The great defect in our present system is the non-enforcement of laws by local registrars, largely from unwillingness to antogonize prominent members of the medical profession, who occasionally, or regularly, disregard their duties relative to the registration of births.

All of the data, both for the registration of births and deaths, must be honest, fairly presented, and complete, and such a system of registration is the sign of commercial progress and opportunity, as well as indispensable to the removal of unsanitary conditions, for public health means better value for real estate, lower rates and less discriminations in the issue of policies of life insurance, and the general up-building of the community.

What is known as the "Model Law" regarding the registration of births, and which appears to be working successfully in states where it has been adopted, would certainly be a success in New Jersey, provided the department having in charge the enforcement of the act was entirely removed from politics.

In the report of the registrar for the year 1911, attention was called to the importance of proper tabulating equipment in the Bureau of Vital Statistics, in order that more complete tabulations might be published, and at that time recommendation was made that a Hollerith Tabulating Machine, such as those used by the Bureau of the Census, at Washington. D.C., be made part of the equipment of this office, and the proper help provided to operate the same, however no action in regard to this matter was ever taken.

There is a constant demand at this office for information regarding certain diseases by age periods, occupations, sanitary districts, groups of selected diseases, etc., etc., and in order to properly comply with these requests such a machine would be of great advantage.

It is essential that these statistics be compiled quickly, and tabulated promptly for intelligent consideration, and of course without a great expenditure of labor and time, therefore it is earnestly hoped that this matter will receive consideration at an early date.

Another important matter which I desire to bring to the attention of the State Board of Health, and through them to the legislature, is the fact that at the present time certain justices of the peace in northern New Jersey are still making efforts to defeat the marriage license law, by having marriage ceremonies performed under their supervision and direction, but legally they are merely acting as witnesses and having the contracting parties take each other as man and wife in their presence, thus consummating what is known as a common law marriage, which of course is legal; however there are few people who desire such a ceremony performed, and it is hoped that some legislative action will be taken to further curb such officers.

This department takes no objection whatever to common law marriages, nor is it our desire to place any obstacle in the way of a legitimate marriage ceremony, but rather in recommending the enactment of these laws it has been our effort to promote only such marriages as are proper, for we recognize the fact that the constitutional governments of modern civilization concern themselves with the act and conditions of marriage, not merely because of certain legal necessities growing out of it as a compact and contract, but because the conditions concern national existence and national permanency.

Thus it is the intention to make every effort to encourage proper laws regulating marriage as well as to combat persons and officials who encourage the marriage of ill assorted, intoxicated, or otherwise unfit couples matrimonially inclined.

TABLE 1—Births, Marriages and Deaths by Counties, Cities, Boroughs and Townships for the five years ending December 31, 1912.

ATLANTIC COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Absecon	8	4	2	6	2	8	4	7	7	4	8	7	16	14	9
**Atlantic City	724	636	677	885	926	562	697	602	530	564	656	679	800	796	767
Buena Vista	78	73	91	84	73	18	32	37	22	28	43	36	37	46	45
Brigantine	1	0	0	0	0	0	0	0	0	0	2	2	0	0	1
Egg Harbor City	60	62	56	54	67	28	19	27	27	28	34	36	40	37	35
Egg Harbor Township	23	27	12	16	20	6	7	7	5	3	22	23	22	15	19
Folsom Borough	5	5	5	4	7	2	3	0	1	1	0	2	1	1	5
Galloway	14	27	20	15	24	4	6	4	4	6	23	16	18	19	21
Hamilton Township	37	22	39	37	35	10	4	12	12	13	23	38	35	35	25
Hammonton	101	152	166	159	173	34	59	53	62	53	68	93	74	68	56
Linwood	0	7	14	13	11	0	3	6	2	4	0	10	1	10	8
Longport Borough	0	1	0	1	1	2	0	0	2	1	2	3	19	6	7
Margate City	0	2	0	1	2	0	0	0	2	1	1	3	6	3	3
Mullica	14	12	16	15	12	3	4	4	2	3	14	17	13	21	11
Northfield City	11	9	8	18	20	1	1	2	2	5	26	27	27	33	44
Pleasantville	66	105	86	127	114	37	41	46	37	37	41	57	82	69	73
Port Republic City	4	4	3	8	1	3	4	5	2	8	3	8	7	11	3
Somers Point	8	7	10	9	8	4	1	4	6	4	11	3	7	7	8
Ventnor	1	2	4	22	24	1	0	2	2	3	6	10	13	15	24
Weymouth	10	10	17	9	6	7	2	4	2	3	8	7	10	7	6
						*5	*3								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

**The death rate in summer resorts is calculated on the basis of the resident population, whereas the actual population is often several times larger, and on account of this floating population and the large number of invalids included in it, the death-rate is not a criterion of health conditions.

NOTE.—The marriage license law of 1910 went into effect on July 1st of that year, therefore the figures marked with a * in the following tables refer only to marriages which took place during the first six months of the year in question. Under the marriage license act which was in force prior to July 1st, 1910, non-residents of this state coming to New Jersey and marrying were required to go to the office of the County Clerk and procure a marriage license.

BERGEN COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Allendale	15	14	10	15	12	2	6	3	3	6	13	13	13	18	8
Alpine Borough	8	7	2	6	4	3	2	2	3	2	3	5	5	6	2
Bergenfield	52	38	51	62	54	8	17	19	13	14	21	15	24	13	23
Bogota	19	22	25	25	39	4	6	7	4	6	10	13	15	10	13
Carlstadt	86	96	110	84	90	42	26	30	24	32	36	53	40	45	39
Cliffside Park	80	94	107	112	125	16	30	45	56	38	38	36	52	59	54
Closter Borough	18	20	21	10	20	7	10	5	7	9	10	12	20	12	17
Cresskill	10	13	16	17	14	2	5	3	4	1	9	7	13	6	2
Delford	13	17	18	10	24	5	3	3	3	5	9	7	18	8	14
Demarest Borough	10	5	9	6	7	1	4	2	2	1	10	5	8	10	4
Dumont	41	35	44	56	48	16	11	8	5	8	11	22	19	33	21
East Rutherford	72	93	119	96	117	21	33	45	35	44	54	45	55	56	43
Edgewater	59	55	57	67	65	44	42	31	22	21	34	21	34	38	32
Emerson	17	19	17	19	16	9	8	3	5	4	4	9	5	8	7
Englewood City	174	193	182	193	210	79	70	68	68	68	126	135	156	140	134
Englewood Cliffs	2	5	3	1	4	3	1	1	0	4	3	4	7	6	1
Fairview	88	113	114	96	109	9	5	7	9	6	18	39	33	21	19
Fort Lee	25	60	71	35	11	38	51	31	24	15	47	53	58	43	24
Franklin	31	32	35	24	34	11	12	9	7	9	17	20	20	17	20
Garfield	236	303	374	394	365	46	72	72	82	88	118	140	130	136	138
Glen Rock	16	11	17	10	15	1	4	15	0	2	16	10	9	7	7
Hackensack City	331	322	402	403	391	152	154	185	153	180	170	191	228	218	219
Harrington Park Borough	2	8	7	4	10	2	3	2	1	4	4	2	2	5	8
Hasbrouck Heights	24	24	30	43	28	3	10	15	7	12	20	17	21	19	14
Haworth Borough	10	8	7	5	12	1	3	2	2	3	6	3	5	10	7
Hillsdale	17	16	19	19	27	5	5	5	6	9	7	13	10	16	15
Hohokus Borough	....	....	....	8	1	....	....	....	0	1	....	....	....	6	20
Hohokus Township	16	14	16	19	44	17	10	2	8	3	24	25	18	19	14
Leonia	....	2	4	19	13	1	1	4	8	7	9	0	3	19	10
Little Ferry	43	45	40	77	54	1	6	8	5	8	16	29	33	19	21
Lodi Borough	100	104	126	153	169	12	27	34	36	44	41	43	53	51	65
Lodi Township	14	18	15	7	15	1	1	1	1	0	8	15	8	2	6
Maywood	14	21	20	18	17	4	10	4	2	4	10	15	13	17	8
Midland	25	25	21	20	15	7	13	2	7	8	51	52	63	45	36
Midland Park	54	39	49	45	54	14	5	14	18	21	20	27	20	20	12
Montvale	11	6	12	9	10	....	2	2	0	3	3	7	13	5	10
Moonachie	....	....	15	19	11	....	....	4	0	10	....	....	1	5	9
North Arlington	4	7	12	9	11	....	2	2	2	1	5	4	3	2	3
Northvale	7	7	15	17	15	1	2	2	5	8	15	9	10	5	6
Norwood Borough	12	6	23	8	11	5	4	3	4	1	11	9	4	5	6
Oakland	....	6	8	11	8	....	4	....	0	1	....	8	9	8	5
Old Tappan	2	6	6	2	1	....	2	....	0	3	3	4	4	1	4
Orvil Township	15	14	10	13	23	10	3	4	4	5	14	10	15	13	12
Overpeck	81	78	103	105	119	16	11	21	29	35	44	38	43	53	46
Palisade	33	23	33	31	26	8	3	6	9	6	12	17	12	8	15
Palisade Park	41	45	36	49	59	2	3	7	11	4	21	12	17	24	27
Park Ridge	21	32	24	23	33	8	6	10	6	10	20	20	20	19	22
Ramsey	4	18	32	25	22	....	7	8	14	10	8	27	31	15	25
Ridgefield Borough	22	11	9	16	16	8	6	8	2	3	6	4	1	12	9
Ridgefield Township	3	3	0	1	0	1	2	....	1	0	4	0	5	0	0
Ridgewood	82	84	81	77	71	28	37	34	36	40	46	48	53	70	76
Riverside	12	9	15	9	5	4	0	1	0	1	9	3	8	5	4
Rivervale Township	6	7	6	5	6	1	0	1	0	1	....	8	3	1	5
Rutherford	87	102	100	108	123	41	43	35	52	48	50	53	69	57	83
Saddle River Borough	11	5	5	2	3	2	2	2	2	3	3	13	6	4	8
Saddle River Township	25	49	60	58	98	4	2	7	7	7	30	22	41	36	27
Teaneck	21	35	35	37	60	4	4	3	3	2	10	17	14	19	23
Tenafly	42	52	58	53	36	8	18	17	13	17	32	18	30	24	35
Union	64	86	121	53	136	8	2	33	32	30	56	39	55	61	79
Upper Saddle River Borough	3	2	4	3	3	....	2	3	1	4	2	0	2	4	5
Wallington	....	1	0	3	1	....	0	2	0	0	....	0	2	5	1
Washington	3	3	8	5	3	1	0	1	0	2	....	5	1	3	1
Westwood	32	32	37	29	42	17	28	12	17	11	18	19	21	20	17
Woodcliffe	9	11	5	10	4	3	2	3	4	0	6	11	7	3	12
Wood Ridge	26	26	29	28	34	4	1	5	4	9	10	13	11	10	11
						*9	*2	*1							

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

BURLINGTON COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Bass River	10	10	9	28	18	6	6	5	7	7	9	8	13	4	9
Beverly City	57	40	51	30	49	26	19	26	15	18	48	53	58	42	47
Beverly Township	36	35	24	32	26	16	15	9	10	14	23	23	35	27	29
Bordentown City	64	74	66	85	100	42	47	36	31	32	71	55	80	81	73
Bordentown Township	6	7	3	7	7	....	1	9	1	0	4	9	1	7	8
Burlington City	127	130	158	151	192	82	74	89	73	111	157	134	150	122	150
Burlington Township	8	9	9	12	9	....	1	1	1	0	23	20	27	21	15
Chester	81	85	99	108	96	39	43	39	26	49	74	77	70	79	58
Chesterfield	16	8	13	16	10	....	1	6	6	7	16	17	17	12	12
Cinnaminson	13	15	24	19	16	7	1	2	2	4	14	8	15	15	8
Delran	21	19	12	23	21	3	3	6	2	5	11	17	24	19	11
Easthampton	11	6	8	6	2	....	0	0	0	1	5	7	2	9	6
Evesham	29	34	31	30	24	4	6	6	3	8	19	19	12	15	16
Fieldsboro	6	9	7	9	7	1	7	7	2	2	11	5	9	6	9
Florence	89	92	84	105	151	18	12	17	18	21	81	55	83	67	70
Lumberton	17	24	14	23	24	5	5	7	9	7	20	22	39	29	29
Mansfield	15	22	17	19	21	6	6	11	10	5	27	26	23	20	17
Medford	41	35	36	37	36	18	10	15	12	20	38	29	35	47	38
Mount Laurel	28	33	25	45	42	....	3	3	0	2	26	16	26	18	21
New Hanover	12	9	10	15	13	7	9	6	9	8	24	23	13	21	24
Northampton	115	103	84	121	83	71	57	54	53	52	129	111	110	111	105
North Hanover Township	2	2	27	2	4	5	14	3	3	5	4	3	4	4	11
Palmyra	39	53	49	53	57	15	15	20	14	18	46	27	40	37	42
Pemberton Borough	10	17	15	15	7	18	10	10	8	9	14	12	11	15	9
Pemberton Township	8	7	5	1	1	2	2	3	7	3	71	62	71	53	71
Riverside	86	87	103	88	97	26	20	31	44	61	47	38	50	50	41
Riverton Borough	37	23	30	40	43	10	16	14	5	15	23	14	16	27	25
Shamong	5	9	4	5	6	3	2	2	0	0	10	3	4	11	7
Southampton	3	28	34	19	24	11	8	7	2	5	18	25	21	25	17
Springfield	14	6	10	5	8	1	1	0	3	3	18	17	12	16	19
Tabernacle	6	5	2	1	6	1	2	2	2	0	3	2	4	7	5
Washington	8	9	11	9	8	....	0	7	4	4	5	6	6	8	8
Westhampton	8	6	5	8	4	2	4	1	0	0	10	5	8	2	4
Willingboro	3	10	5	8	8	....	1	3	1	0	4	15	8	10	10
Woodland	16	12	11	15	19	3	4 *1	0	1	1	4	13	4	5	7

*Marriage certificate received from County Clerk in which the place where the marriage was performed is not stated.

CAMDEN COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Audubon Borough	22	18	29	15	45	5	1	7	7	9	9	5	9	18	16
Berlin	....	....	30	35	30	....	....	7	17	15	....	....	17	24	25
Camden City	1866	1603	2006	2172	1981	2709	2960	1985	1387	1280	1471	1480	1627	1626	1519
Centre	46	55	45	68	58	4	4	17	8	16	48	48	49	30	43
Chesilhurst	6	10	1	7	4	....	0	2	3	3	5	6	3	7	5
Clementon	40	74	55	65	64	12	11	17	25	9	47	32	46	29	23
Collingswood	74	61	76	91	111	19	21	30	30	18	43	52	44	58	63
Delaware	20	17	26	22	28	....	0	1	3	1	8	6	15	17	21
Gloucester City	219	201	156	221	200	78	73	99	69	98	172	162	147	131	125
Gloucester Township	42	37	42	43	41	16	31	15	9	14	120	92	111	102	100
Haddon	23	14	33	28	19	9	7	4	3	2	14	14	26	11	18
Haddonfield	62	60	56	65	70	30	25	17	22	23	44	51	55	50	72
Haddon Heights Borough	20	18	24	32	31	4	13	12	9	13	11	9	15	18	17
Merchantville Borough	38	24	33	23	27	30	30	23	31	31	38	17	26	23	38
Oaklyn Borough	8	10	14	19	17	3	0	23	158	17	7	5	7	6	4
Pensauken	48	43	57	63	51	7	11	51	132	37	48	48	55	45	51
Voorhees	17	15	18	51	39	6	7	5	5	3	16	9	12	16	24
Waterford	75	79	47	32	31	19	20	9	8	3	40	36	33	24	22
Winslow	41	51	72	75	67	4	7	10	8	8	36	36	48	40	38
Wood Lynne Borough	11	7	8	17	35	2	1	5	4	7	3	2	4	7	7
						*7	*9								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

CAPE MAY COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Avalon	1	1	1	3	3	1	1	....	0	2	....	3	0	8	2
**Cape May City	27	20	28	25	29	33	18	23	42	25	32	20	42	27	30
Cape May Point	....	0	....	....	0	....	0	....	0	0	....	0	0	0	4
Dennis	24	28	15	23	28	13	13	12	6	6	21	33	21	20	16
Holly Beach Borough	45	33	43	52	13	16	15	25	16	0	17	29	27	29	1
Lower	13	16	28	27	21	4	9	4	8	7	7	20	24	10	7
Middle	55	53	29	46	62	24	23	15	15	20	32	24	42	31	25
North Wildwood Borough	....	....	17	16	33	....	....	2	2	0	....	6	13	12	4
Ocean City	35	41	48	64	90	13	16	22	26	26	41	50	45	56	43
Sea Isle City	16	14	13	15	13	6	8	5	6	6	11	13	14	8	12
Upper	20	20	21	18	14	9	10	7	14	4	19	26	35	17	19
West Cape May	19	18	19	9	31	1	7	4	7	4	8	15	12	11	9
Wildwood	14	15	14	10	28	8	4	13	21	48	13	7	13	7	41
Wildwood Crest	....	....	....	11	34	....	....	....	0	0	....	....	2	6	2
Woodbine	79	63	73	68	57	9	9	9	12	8	7	8	5	11	10
						*2									

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

**The death-rate in summer resorts is calculated on the basis of the resident population, whereas the actual population is often several times larger, and on account of this floating population and the large number of invalids included in it, the death-rate is not a criterion of health conditions.

CUMBERLAND COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1900	1910	1911	1912
Bridgeton	207	163	236	233	234	111	113	131	132	137	180	210	216	247	189
Commercial	42	46	48	43	40	21	16	12	5	10	21	39	32	37	31
Deerfield	56	50	34	32	49	15	19	12	10	7	27	20	24	39	36
Downe	32	20	24	27	19	5	8	14	12	8	18	24	11	22	24
Fairfield	37	37	39	33	28	5	14	11	4	9	32	12	20	27	21
Greenwich	17	19	32	25	21	2	3	2	7	9	11	15	16	16	11
Hopewell	17	18	24	23	23	5	8	13	6	4	43	30	48	59	48
Landis	79	68	61	68	82	8	8	6	2	11	81	66	63	115	109
Lawrence	29	33	31	37	29	15	5	14	8	10	19	26	19	26	20
Maurice River	27	39	43	38	39	6	15	8	11	6	23	23	28	21	30
Millville City	266	289	257	307	255	94	105	89	97	117	187	151	149	166	169
Stow Creek	8	9	14	21	15	2	2	1	4	5	7	6	7	13	13
Vineland	100	131	155	143	124	82	101	87	80	76	97	118	150	106	97
						*1	*1								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

ESSEX COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Belleville	172	170	245	281	297	46	49	62	66	72	116	190	220	173	137
Bloomfield City	246	259	286	393	372	65	108	137	118	135	158	152	168	146	140
Caldwell Borough	39	48	36	44	42	9	17	19	26	23	38	28	39	22	34
Caldwell Township	8	8	5	9	6	6	0	4	2	2	21	10	5	5	8
Cedar Grove	5	14	10	17	19	4	1	3	4	6	20	63	123	113	146
East Orange City	505	589	600	529	582	145	188	230	213	239	278	322	370	335	317
Essex Fells	6	4	7	9	4	1	3	3	3	2	2	6	4	5	3
Glen Ridge	32	42	46	33	47	11	19	13	13	21	16	24	34	31	23
Irvington	188	179	234	250	341	38	47	49	91	93	99	127	142	160	151
Livingston	6	21	20	18	21	3	5	4	4	3	11	5	16	17	18
Millburn	58	56	69	59	91	12	11	26	24	29	40	36	35	41	47
Montclair City	449	450	456	525	571	156	156	157	159	171	235	277	324	313	318
Newark City	8613	8739	10023	10592	10611	3475	4108	4148	3703	4126	5198	5516	5784	5451	5430
North Caldwell Borough	2	1	4	4	5	1	0	2	0	0	4	4	0	5	4
Nutley Borough	65	78	90	105	114	20	46	34	32	40	57	49	57	67	68
Orange City	830	654	839	849	907	244	263	280	224	295	525	447	525	540	563
Roseland Borough	8	18	12	10	8	5	1	2	5	3	1	7	6	6	7
South Orange Borough	77	79	101	115	98	33	45	56	47	42	47	66	61	65	63
South Orange Township	46	57	55	62	76	16	14	16	13	17	19	31	36	38	35
Verona Borough	33	19	36	40	34	8	13	13	14	15	18	17	21	33	24
West Caldwell Borough	6	6	14	16	9	....	1	0	1	0	6	6	6	9	10
West Orange City	220	253	250	295	274	34	41	45	38	44	106	116	95	106	112
						*12	*8	*6							

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

GLOUCESTER COUNTY.

NAME OF PLACE.	BIRTHS. YEARS.					MARRIAGES. YEARS.					DEATHS. YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Clayton	42	46	33	38	30	9	13	6	12	14	18	23	24	31	21
Deptford	40	42	42	62	66	9	10	14	7	8	32	34	37	30	34
East Greenwich	26	28	23	28	16	10	9	12	7	4	20	20	29	26	25
Elk	15	12	8	21	18	4	5	1	1	1	7	8	3	13	11
Franklin	35	35	44	47	54	5	10	15	17	23	34	43	37	35	35
Glassboro	63	54	49	75	52	26	20	43	30	28	29	39	49	48	27
Greenwich	13	14	19	19	18	3	7	5	3	1	4	13	6	16	10
Harrison	30	22	29	32	40	6	5	1	3	5	19	20	20	23	16
Logan	28	26	24	23	22	4	5	5	5	3	21	26	16	16	23
Mantua	30	26	23	21	27	11	8	9	15	9	20	22	18	31	16
Monroe	38	35	44	67	62	13	19	25	24	23	33	31	43	51	40
National Park Borough	5	5	6	5	8	1	0	1	1	2	....	3	2	1	5
Paulsboro Borough	50	39	49	59	69	12	5	8	9	7	25	30	35	44	33
Pitman Grove Boro	24	35	28	39	50	17	21	13	16	11	20	26	28	28	33
South Harrison	6	8	5	7	3	3	7	2	0	2	3	5	3	4	8
Swedesboro	38	30	28	31	30	17	19	19	21	25	28	34	14	25	26
Washington	28	21	24	31	29	2	1	9	0	6	19	19	16	15	19
Wenonah	3	7	14	12	10	2	6	7	7	3	3	5	8	7	6
West Deptford	36	32	34	26	41	14	9	11	9	22	24	32	33	23	19
Woodbury	67	60	59	57	63	49	61	55	43	43	75	75	64	60	69
Woolwich	25	13	25	16	19	....	0 *3	0 *1	1	1	12	14	11	12	7

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

HUDSON COUNTY.

NAME OF PLACE.	BIRTHS. YEARS.					MARRIAGES. YEARS.					DEATHS. YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Bayonne	1719	1721	1800	1980	1856	524	571	572	564	638	722	678	827	815	850
East Newark	35	47	51	53	30	9	8	21	17	30	45	39	29	35	30
Guttenberg	144	131	165	185	209	25	27	50	22	58	74	55	67	77	73
Harrison	293	298	324	275	321	127	125	143	130	159	223	180	237	194	211
Hoboken	1978	1728	1810	19-.5	1962	2398	2822	2383	1771	2149	1266	1241	1329	1266	1140
Jersey City	4603	3983	4681	5096	5277	4312	5011	4177	3861	3348	4428	4404	4407	4384	4028
Kearny	317	356	347	393	441	95	121	123	122	167	237	207	276	267	270
North Bergen	350	321	360	421	374	81	92	79	103	113	195	178	212	217	179
Secaucus	53	32	32	45	58	7	7	14	12	9	212	244	388	376	238
Town of Union	467	429	614	424	421	276	341	334	298	294	294	277	252	233	207
Weehawken	155	147	149	141	208	40	72	53	59	74	105	125	174	204	213
West Hoboken	832	718	838	898	889	388	457	414	311	373	401	420	386	404	380
West New York	265	299	348	424	495	123	116	133	128	227	141	152	169	176	192

HUNTERDON COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Alexandria	9	9	19	10	16	3	5	4	3	5	14	10	18	14	12
Bethlehem	20	8	21	11	23	4	2	1	0	2	17	8	10	16	17
Bloomsbury Borough	2	8	14	12	10	4	9	7	3	5	3	14	10	20	14
Clinton Borough	....	3	5	8	8	4	5	8	7	6	12	12	13	16	16
Clinton Township	28	24	34	45	38	12	9	15	5	13	28	32	25	36	36
Delaware	28	23	31	18	30	10	12	8	8	5	24	21	28	27	22
East Amwell	16	17	12	23	18	4	5	14	8	5	22	9	23	17	14
Flemington	....	....	19	36	38	....	....	13	20	24	....	....	27	35	44
Franklin	8	12	13	14	15	8	10	10	4	8	9	15	10	18	10
Frenchtown	7	8	8	7	11	10	11	8	12	9	22	17	9	15	25
Hampton	19	16	18	23	18	14	10	6	7	7	16	15	20	9	8
High Bridge	23	20	34	28	17	11	12	8	12	12	18	16	31	26	19
Holland	16	20	14	31	15	12	6	9	6	1	29	23	30	26	11
Kingwood	16	11	17	19	18	2	3	4	7	2	19	14	18	11	20
Lambertville	84	100	98	92	97	34	31	34	46	23	51	72	57	53	70
Lebanon	33	32	23	33	28	11	14	12	10	16	19	41	31	41	24
Milford	....	....	....	5	22	....	....	....	0	4	....	....	....	1	9
Raritan	41	67	54	30	28	24	21	10	6	12	64	36	33	30	22
Readington	31	43	31	33	47	7	22	18	15	10	30	40	38	42	53
Stockton	3	12	16	18	16	3	3	3	1	3	4	8	10	6	9
Tewksbury	21	19	26	24	21	10	12	14	8	13	24	21	22	27	16
Union	23	5	13	13	11	3	2	7	6	1	15	12	16	11	12
West Amwell	11	10	13	15	9	1	5	8	2	2	7	10	10	9	8

MERCER COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
East Windsor	10	20	15	11	10	1	2	4	1	1	13	8	13	13	15
Ewing	15	12	19	19	26	3	4	4	5	3	23	16	24	21	20
Hamilton	58	72	89	62	145	19	28	12	32	37	54	53	95	62	116
Hightstown	23	25	33	35	23	32	24	12	16	19	24	21	32	27	32
Hopewell Borough	23	14	15	19	22	14	17	13	14	12	22	14	16	12	16
Hopewell Township	18	27	36	34	46	6	6	15	6	5	44	43	52	43	25
Lawrence	26	30	38	44	39	8	6	15	6	9	25	25	26	32	36
Pennington Borough	7	10	9	9	13	7	4	13	6	11	12	9	10	9	17
Princeton Borough	106	78	82	99	110	35	43	51	52	36	104	61	78	73	65
Princeton Township	9	15	8	13	14	....	2	....	1	2	4	2	8	10	4
Trenton	1139	1375	1566	1895	2740	865	965	1093	924	1166	1625	1661	1969	1842	1714
Washington	17	13	13	19	14	5	8	2	5	6	17	14	10	13	10
West Windsor	19	18	21	29	21	7	5	3	5	3	13	10	17	20	14
						*4	*2								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

MIDDLESEX COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Cranbury	30	31	24	21	20	11	16	15	9	14	35	15	20	20	22
Dunellen	40	35	44	41	51	9	13	6	10	14	31	16	28	25	23
East Brunswick	20	22	16	17	13	9	7	6	4	4	18	13	21	21	9
Helmetta	7	3	9	26	24	2	0	0	1	8	1	1	3	12	5
Highland Park Borough	11	22	36	31	42	8	3	5	2	6	8	11	14	19	32
Jamesburg	28	25	17	14	28	22	11	13	19	21	3	12	14	12	14
Madison	30	22	26	29	30	1	0	2	2	3	12	18	20	15	12
Metuchen	27	35	36	42	33	22	18	13	20	15	26	28	52	36	27
Milltown	26	31	45	40	49	14	13	14	10	8	20	12	15	12	21
Monroe	11	12	20	15	24	6	8	4	2	1	9	7	17	9	10
New Brunswick	426	491	557	676	641	336	338	357	366	364	454	487	496	474	505
North Brunswick	11	11	6	12	9	2	2	0	1	0	9	7	9	16	19
Perth Amboy	427	696	1038	1114	1165	358	432	474	376	526	395	432	507	468	517
Piscataway	56	43	60	67	60	8	1	17	15	20	37	38	51	43	54
Raritan	17	22	18	23	27	3	3	3	7	2	37	23	28	34	36
Roosevelt Borough	157	155	171	170	188	35	45	50	104	72	61	56	90	87	92
Sayreville	190	171	211	215	223	17	30	21	15	24	50	52	45	60	63
South Amboy	71	150	162	158	152	27	53	65	72	48	90	94	108	99	100
South Brunswick	27	50	41	59	49	13	10	11	12	14	32	24	42	46	33
South River	134	124	147	186	191	32	33	109	122	143	60	68	52	93	92
Spotswood Borough	....	4	9	24	13	....	3	....	4	4	....	11	5	9	5
Woodbridge	107	134	182	247	250	30	42	49	31	34	103	95	121	111	164

HUNTERDON COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Alexandria	9	9	19	10	16	3	5	4	3	5	14	10	18	14	12
Bethlehem	20	8	21	11	23	4	2	1	0	2	17	8	10	16	17
Bloomsbury Borough	2	8	14	12	10	4	9	7	3	5	3	14	10	20	14
Clinton Borough	....	3	5	8	8	4	5	8	7	6	12	12	13	16	16
Clinton Township	28	24	34	45	38	12	9	15	5	13	28	32	25	36	36
Delaware	28	23	31	18	30	10	12	8	8	5	24	21	28	27	22
East Amwell	16	17	12	23	18	4	5	14	8	5	22	9	23	17	14
Flemington	....	....	19	36	38	....	....	13	20	24	....	....	27	35	44
Franklin	8	12	13	14	15	8	10	10	4	8	9	15	10	18	10
Frenchtown	7	8	8	7	11	10	11	8	12	9	22	17	9	15	25
Hampton	19	16	18	23	18	14	10	6	7	7	16	15	20	9	8
High Bridge	23	20	34	28	17	11	12	8	12	12	18	16	31	26	19
Holland	16	20	14	31	15	12	6	9	6	1	29	23	30	26	11
Kingwood	16	11	17	19	18	2	3	4	7	2	19	14	18	11	20
Lambertville	84	100	98	92	97	34	31	34	46	23	51	72	57	53	70
Lebanon	33	32	23	33	28	11	14	12	10	16	19	41	31	41	24
Milford	....	....	....	5	22	....	....	....	0	4	....	....	....	1	9
Raritan	41	67	54	30	28	24	21	10	6	12	64	36	33	30	22
Readington	31	43	31	33	47	7	22	18	15	10	30	40	38	42	53
Stockton	3	12	16	18	16	3	3	3	1	3	4	8	10	6	9
Tewksbury	21	19	26	24	21	10	12	14	8	13	24	21	22	27	16
Union	23	5	13	13	11	3	2	7	6	1	15	12	16	11	12
West Amwell	11	10	13	15	9	1	5	8	2	2	7	10	10	9	8

MERCER COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
East Windsor	10	20	15	11	10	1	2	4	1	1	13	8	13	13	15
Ewing	15	12	19	19	26	3	4	4	5	3	23	16	24	21	20
Hamilton	58	72	89	62	145	19	28	12	32	37	54	53	95	62	116
Hightstown	23	25	33	35	23	32	24	12	16	19	24	21	32	27	32
Hopewell Borough	23	14	15	19	22	14	17	13	14	12	22	14	16	12	16
Hopewell Township	18	27	36	34	46	6	6	15	6	5	44	43	52	43	25
Lawrence	26	30	38	44	39	8	6	15	6	9	25	25	26	32	36
Pennington Borough	7	10	9	9	13	7	4	13	6	11	12	9	10	9	17
Princeton Borough	106	78	82	99	110	35	43	51	52	36	104	61	78	73	65
Princeton Township	9	15	8	13	14	....	2	....	1	2	4	2	8	10	4
Trenton	1139	1375	1566	1895	2740	865	965	1093	924	1166	1625	1661	1969	1842	1714
Washington	17	13	13	19	14	5	8	2	5	6	17	14	10	13	10
West Windsor	19	18	21	29	21	7	5	3	5	3	13	10	17	20	14
						*4	*2								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

MIDDLESEX COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Cranbury	30	31	24	21	20	11	16	15	9	14	38	15	20	20	22
Dunellen	40	35	44	41	51	9	13	6	10	14	31	16	28	25	23
East Brunswick	20	22	16	17	13	9	7	6	4	4	18	13	21	21	9
Helmetta	7	3	9	26	24	2	0	0	1	8	1	1	3	12	5
Highland Park Borough	11	22	36	31	42	8	3	5	2	6	8	11	14	19	32
Jamesburg	28	25	17	14	28	22	11	13	19	21	3	12	14	12	14
Madison	30	22	26	29	30	1	0	2	2	3	12	18	20	15	12
Metuchen	27	35	36	42	33	22	18	13	20	15	26	28	52	36	27
Milltown	26	31	45	40	49	14	13	14	10	8	20	12	15	12	21
Monroe	11	12	20	15	24	6	8	4	2	1	9	7	17	9	10
New Brunswick	426	491	557	676	641	336	338	357	366	364	454	487	496	474	505
North Brunswick	11	11	6	12	9	2	2	0	1	0	9	7	9	16	19
Perth Amboy	427	696	1038	1114	1165	358	432	474	376	526	395	432	507	468	517
Piscataway	56	43	60	67	60	8	1	17	15	20	37	38	51	43	54
Raritan	17	22	18	23	27	3	3	3	7	2	37	23	28	34	36
Roosevelt Borough	157	155	171	170	188	35	45	50	104	72	61	56	90	87	92
Sayreville	190	171	211	215	223	17	30	21	15	24	50	52	45	60	63
South Amboy	71	150	162	158	152	27	53	65	72	48	90	94	108	99	100
South Brunswick	27	50	41	59	49	13	10	11	12	14	32	24	42	46	33
South River	134	124	147	186	191	32	33	109	122	143	60	68	52	93	92
Spotswood Borough	....	4	9	24	13	....	3	....	4	4	....	11	5	9	5
Woodbridge	107	134	182	247	250	30	42	49	31	34	103	95	121	111	164

MONMOUTH COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Allenhurst	2	6	10	11	2	2	6	....	1	0	9	4	5	5	7
Allentown	1	5	3	5	1	9	2	14	8	17	15	9	14	11	14
**Asbury Park	174	188	189	196	209	146	142	116	122	173	157	164	70	145	160
Atlantic	12	5	6	13	9	7	7	7	9	8	12	3	17	12	8
Atlantic Highlands	27	29	35	39	28	18	14	17	15	24	19	18	23	26	29
Avon	12	7	11	9	10	8	5	5	11	14	11	3	11	10	8
Belmar	25	38	36	51	35	33	27	36	15	27	22	24	24	23	21
Bradley Beach Borough	18	32	33	34	28	14	24	21	15	21	20	24	22	23	22
Deal	6	6	4	3	1	4	4	4	5	1	4	5	3	1	4
Eatontown	29	34	44	36	28	20	9	13	12	14	17	18	26	23	25
Englishtown	6	6	9	6	8	2	3	7	9	7	....	0	2	14	10
Fair Haven	..	....	....	....	23	....	....	....	....	9	....	....	....	....	13
Farmingdale	13	8	15	13	8	14	9	6	9	8	6	8	5	11	6
Freehold Borough	77	84	61	61	68	44	42	41	31	43	64	57	52	53	62
Freehold Township	10	26	35	25	30	7	3	5	3	6	24	22	25	28	24
Highlands Borough	32	30	44	44	56	10	16	16	15	13	25	14	18	19	38
Holmdel	17	10	17	14	11	3	6	6	3	3	10	7	7	24	15
Howell	38	34	40	32	19	7	7	11	6	6	22	22	29	37	35
Keyport Borough	...	57	70	77	64	...	35	32	33	46	....	44	51	53	39
**Long Branch	149	170	248	274	290	120	119	102	124	120	227	262	292	284	335
Manalapan	21	20	32	14	28	16	13	12	2	7	3	17	8	18	25
Manasquan	8	28	30	30	28	12	25	11	18	21	16	29	20	19	20
Marlboro	12	15	6	13	25	8	3	4	4	10	16	17	15	20	21
Matawan Borough	26	19	28	30	26	6	6	19	16	16	17	31	32	33	17
Matawan Township	22	11	18	31	33	....	8	2	3	6	16	19	28	22	27
Middletown	86	78	73	84	86	18	27	23	24	24	82	89	90	90	83
Millstone	6	14	20	14	19	7	3	4	6	2	9	10	13	14	11
Monmouth Beach Borough	2	5	3	2	3	2	2	0	0	0	5	1	2	2	3
Neptune Township	98	113	87	88	117	51	41	31	32	33	98	100	104	107	133
Neptune City Borough	6	12	8	8	5	2	0	0	1	1	5	2	2	4	7
Ocean	17	19	24	21	26	1	4	3	4	7	10	13	23	23	26
Raritan	80	46	39	18	24	39	11	1	7	9	67	30	23	24	17
Red Bank City	122	67	105	120	153	77	80	86	58	96	85	102	113	115	121
Rumson Borough	24	20	21	37	32	6	11	11	9	6	15	15	28	21	16
Seabright	31	19	23	25	25	7	6	10	6	6	12	9	8	17	11
Shrewsbury	50	36	49	28	36	15	19	19	2	4	39	42	58	16	29
Spring Lake Borough	30	31	39	37	41	7	6	12	7	6	26	41	31	45	54
Upper Freehold	22	42	33	37	49	14	8	7	13	11	21	26	27	24	19
Wall	30	36	38	39	51	12	24	19	15	15	36	32	47	34	37
West Long Branch	4	12	8	3	10	6	3	5	1	1	5	6	5	5	4
						*6	*4	*2							

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

**The death-rate in summer resorts is calculated on the basis of the resident population, whereas the actual population is often several times larger, and on account of this floating population and the large number of invalids included in it, the death-rate is not a criterion of health conditions.

MORRIS COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Boonton City	86	95	100	88	106	44	42	36	31	55	73	71	70	61	73
Boonton Township	4	6	5	3	2	1	2	0	0	0	5	5	10	4	3
Butler	54	64	64	75	63	16	21	31	14	25	20	24	30	20	30
Chatham Borough	43	45	43	40	34	15	15	14	7	17	22	18	26	28	25
Chatham Township	3	4	9	8	4	....	2	1	0	3	4	7	7	7	4
Chester	12	15	19	17	20	5	7	8	5	8	12	9	21	10	18
Dover City	138	142	136	199	188	66	73	83	76	81	88	111	100	98	90
Florham Park Borough	4	9	8	1	8	....	0	0	0	0	7	13	10	12	9
Hanover	56	48	53	54	52	15	14	25	17	21	197	235	220	262	235
Jefferson	14	12	9	15	14	4	4	0	3	2	16	12	19	14	16
Madison	90	108	110	121	137	38	36	35	46	44	45	66	51	63	57
Mendham Borough	7	22	26	29	26	1	8	9	9	5	15	25	10	19	16
Mendham Township	18	6	9	3	17	....	3	1	0	2	11	18	6	7	2
Montville	13	14	33	33	27	8	10	11	6	7	17	23	31	22	26
Morris Township	14	27	23	14	23	2	0	3	2	8	13	24	16	26	25
Morristown City	224	238	256	253	234	102	98	110	79	102	267	254	296	293	248
Mount Arlington	1	3	3	7	6	4	2	2	2	0	6	1	6	1	6
Mount Olive	7	21	15	23	12	7	2	5	5	1	15	13	12	15	15
Netcong	19	34	40	64	38	6	11	9	11	10	15	23	21	21	11
Passaic	27	36	38	26	41	4	22	13	14	16	33	20	39	29	26
Pequannock	12	13	27	19	42	4	7	4	12	9	20	26	28	12	19
Randolph	7	4	14	21	21	4	5	5	4	3	34	43	46	33	34
Rockaway Borough	48	46	43	66	54	14	17	20	12	23	29	31	23	25	27
Rockaway Township	46	41	53	39	53	18	9	14	7	19	65	63	57	72	54
Roxbury	26	30	50	63	55	21	31	24	20	23	37	40	39	33	46
Washington	34	22	45	31	27	18	12	15	9	7	20	27	29	37	23
Wharton Borough	27	26	31	35	26	11 *1	33	33	22	25	34	38	40	29	26

*Marriage certificate received from County Clerk in which the place where the marriage was performed is not stated.

OCEAN COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Barnegat City	13	0	1	0	0	5	0	0	0	0	17	0	0	3	2
Bay Head	1	4	10	14	6	1	8	1	5	2	4	2	3	4	2
Beach Haven	2	3	....	0	2	2	0	2	2	0	3	8	4	8	8
Berkeley	1	11	10	11	11	....	0	1	1	2	6	5	6	12	13
Brick	25	14	35	25	29	9	6	7	7	5	13	29	23	22	25
Dover	38	45	32	43	55	33	26	31	28	34	42	36	38	30	32
Eagleswood	2	2	8	11	5	2	4	2	4	5	5	5	11	8	8
Harvey Cedars	....	....	....	1	0	....	....	....	0	0	....	....	....	0	1
Island Heights	2	0	5	5	3	5	6	0	0	3	....	5	6	4	2
Jackson	21	23	5	14	7	5	5	1	4	3	17	21	23	11	13
Lacey	6	12	7	7	13	3	5	5	4	4	9	12	11	8	6
Lakewood	97	76	81	82	65	48	53	37	37	36	74	64	82	75	62
Lavalette	....	0	1	2	0	....	0	0	0	0	....	0	0	1	0
Little Egg Harbor	6	2	1	3	7	1	0	0	0	3	8	7	6	5	4
Long Beach	....	0	1	1	2	....	0	0	0	0	....	1	6	1	3
Manchester	17	22	14	26	6	5	7	2	8	7	23	16	16	10	14
Ocean	3	5	10	7	9	....	3	2	1	3	7	2	5	4	6
Plumstead	16	19	18	21	15	7	8	10	9	7	21	25	22	25	18
Point Pleasant Beach Boro	14	11	11	14	21	14	10	9	13	20	13	13	18	14	16
Sea Side Park Borough	....	1	....	3	1	....	0	0	0	0	4	4	2	6	4
Stafford	10	7	2	1	4	2	0	4	6	3	4	10	7	6	8
Tuckerton	19	25	13	11	23	6	12	13	8	8	15	20	21	15	13
Union	3	19	19	15	14	....	6	12	5	7	3	12	17	8	11
						*2	*2	*1							

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

PASSAIC COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Acquackanonk	237	254	334	379	368	56	44	54	64	73	99	118	139	146	151
Haledon Borough	19	24	39	37	34	7	16	20	12	49	14	18	28	26	21
Hawthorne	11	15	39	38	36	5	1	8	14	23	27	14	34	31	27
Little Falls	41	32	77	73	71	9	24	15	14	15	41	42	53	47	48
North Haledon	8	8	11	5	6	1	2	2	4	2	9	13	9	5	9
Passaic City	1627	1758	2043	2094	2093	966	957	1267	1070	1165	762	783	819	830	909
Paterson	2634	2299	2557	2546	2763	1160	1340	1037	1236	1198	1867	1888	1850	1891	1822
Pompton	90	77	78	68	124	26	21	35	31	32	50	32	49	54	61
Pompton Lakes Borough	10	16	17	15	18	14	11	15	15	16	4	6	5	10	15
Prospect Park Borough	9	16	30	32	52	11	17	17	10	12	18	24	23	19	26
Totowa	3	4	16	32	18	1	1	1	1	43	8	6	11	12	8
Wayne	9	17	19	29	19	4	9	7	9	10	19	15	31	25	21
West Milford	30	54	28	41	41	17	14	11	20	13	22	27	36	24	34
						*2	*1								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

SALEM COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Alloway	30	25	27	21	25	5	5	4	7	6	24	14	22	15	15
Elmer Borough	27	20	21	26	27	6	10	13	9	13	15	17	25	14	14
Elsinboro	10	5	2	7	5	....	0	0	1	2	2	3	5	7	3
Lower Alloway Creek	18	25	23	23	21	9	9	5	3	5	3	21	12	21	12
Lower Penns Neck	22	21	24	22	19	1	6	4	1	4	14	14	12	17	21
Mannington	21	21	23	15	23	8	8	5	4	0	26	17	21	18	23
Oldmans	23	31	13	30	29	10	15	7	12	6	6	12	22	17	10
Penns Grove Borough	48	16	38	34	48	17	13	19	7	16	27	10	27	23	25
Pilesgrove	43	37	43	57	42	7	5	5	9	5	24	19	22	22	18
Pittsgrove	48	36	30	48	42	6	4	5	5	16	13	23	15	23	20
Quinton	8	18	14	8	16	3	10	5	4	7	14	17	15	13	7
Salem City	80	108	118	136	147	50	100	75	73	66	118	91	94	104	117
Upper Penns Neck	10	40	9	18	10	....	6	2	5	0	9	12	11	11	7
Upper Pittsgrove	23	31	28	38	31	6	9	10	4	5	19	24	28	20	24
Woodstown	19	29	20	25	25	18	26	23	8	23	21	18	26	31	27
						*1	*1								

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

SOMERSET COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Bedminster	41	17	64	50	37	7	12	14	8	7	22	27	22	32	20
Bernards	43	81	81	84	112	28	40	28	24	38	50	49	55	43	48
Bound Brook Borough	84	47	93	144	162	46	49	44	42	58	56	51	50	45	48
Branchburg	16	12	13	19	9	3	1	7	3	6	5	15	10	22	14
Bridgewater	18	18	21	21	24	6	2	2	2	3	17	13	23	24	25
Franklin	42	21	28	31	27	10	8	13	7	11	31	40	40	37	27
Hillsborough	28	26	35	21	30	13	7	10	11	11	20	26	23	41	30
Millstone	1	1	2	6	6	6	1	0	0	1	1	4	7	8	5
Montgomery	23	12	10	19	14	2	7	5	11	5	24	19	30	18	47
North Plainfield City	109	91	106	103	91	37	42	47	35	39	54	65	78	83	87
North Plainfield Township	11	3	13	11	10	3	0	3	0	1	7	7	4	11	5
Peapack-Gladstone	...	...	...	...	11	...	...	...	...	5	...	...	...	...	8
Raritan	38	22	72	87	100	23	17	26	27	29	22	43	39	42	46
Rocky Hill	8	17	16	7	14	1	4	2	0	3	9	8	8	8	8
Somerville	70	74	76	99	92	50	47	52	36	42	95	76	104	98	96
South Bound Brook	15	17	6	18	10	5	2	7	6	7	14	21	21	11	21
Warren	25	8	20	12	11	4	5	4	2	0	12	8	6	14	10

SUSSEX COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Andover Borough	2	13	9	15	9	3	7	2	2	2	11	9	14	6	4
Andover Township	4	8	12	7	8	....	0	0	0	2	2	4	4	5	3
Branchville	8	4	9	14	4	2	5	9	5	7	8	11	12	16	9
Byram	6	10	15	17	12	....	0	0	2	0	10	21	13	10	4
Frankford	6	9	12	12	10	1	4	1	2	3	6	10	12	9	13
Fredon	4	6	8	8	4	5	3	2	4	2	4	9	10	1	8
Green	7	12	10	11	11	1	2	1	5	2	5	3	6	12	1
Hampton	4	8	7	12	10	1	2	2	3	1	4	10	10	5	5
Hardyston	56	85	121	126	131	35	19	29	29	30	74	109	86	75	83
Hopatcong	1	0	2	3	3	....	1	1	0	1	3	4	4	4	1
Lafayette	14	16	7	10	12	8	7		8	8	14	11	7	14	9
Montague	7	3	8	3	8	....	6	0	1	2	18	14	7	13	9
Newton	75	61	71	66	63	46	52	47	41	45	48	38	59	76	50
Sandyston	17	16	18	21	21	2	6	1	3	7	18	14	4	13	16
Sparta	24	22	26	27	28	11	14	8	11	7	14	28	28	14	28
Stanhope Borough	25	26	23	17	26	6	18	15	5	10	17	12	14	11	9
Stillwater	10	15	14	9	16	6	4	7	7	6	10	5	14	15	20
Sussex Borough	20	17	15	21	24	18	17	25	12	15	20	16	20	25	21
Vernon	9	12	25	19	33	11	8	9	3	6	22	20	23	13	16
Walpack	5	3	5	5	2	....	1	1	0	1	4	5	3	1	4
Wantage	4	6	16	19	18	4	8	8	7	6	26	37	25	32	22
							*1								

*Marriage certificate received from County Clerk in which the place where the marriage was performed is not stated.

UNION COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Clark	5	7	8	6	6	....	1	0	0	0	9	6	3	6	5
Cranford	58	62	75	69	88	24	37	26	33	31	42	38	46	49	47
Elizabeth	1318	1450	1446	1808	1824	578	650	702	671	761	1084	1141	1124	1202	1158
Fanwood Borough	....	5	10	6	3	1	2	0	0	1	4	11	1	6	6
Fanwood Township	5	20	14	34	37	8	20	15	2	4	21	22	21	21	31
Garwood Borough	15	25	29	46	41	1	1	10	9	8	9	10	13	2	9
Kenilworth Borough	18	10	14	13	23	11	8	5	1	0	9	9	8	9	5
Linden Borough	....	7	9	17	38	2	10	7	4	5	1	5	9	16	10
Linden Township	22	21	28	35	19	....	2	4	8	3	11	14	22	31	33
Mountainside	1	5	6	5	4	2	1	2	4	0	1	1	7	4	6
New Providence Borough	15	11	14	14	13	3	5	9	2	6	5	10	12	12	10
New Providence Township	7	1	6	1	3	....	1	1	0	1	4	8	3	2	6
Plainfield	424	430	522	525	517	133	216	193	195	197	334	295	324	295	298
Rahway	112	111	179	171	183	57	73	65	58	73	133	121	99	106	134
Roselle Borough	30	29	30	63	48	17	16	16	23	20	29	28	26	29	32
Roselle Park	42	75	68	68	82	15	8	20	22	18	28	30	31	33	46
Springfield	20	24	20	39	30	5	14	12	4	11	15	13	13	10	14
Summit City	135	143	146	197	173	62	61	40	42	48	106	97	138	87	139
Union	34	45	48	59	62	10	11	11	9	7	28	16	24	25	37
Westfield	84	107	115	115	149	44	43	51	44	53	79	69	78	70	73

WARREN COUNTY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1911	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Allamuchy	8	6	13	27	78	2	0	0	0	5	5	3	11	7	7
Alpha	....	....	....	50	21	....	....	....	4	5	....	....	....	11	26
Belvidere	25	21	24	29	27	24	20	19	24	10	30	23	21	29	23
Blairstown	12	19	18	21	8	13	10	10	8	8	23	27	18	10	14
Franklin	15	30	35	27	46	2	13	7	11	5	22	23	25	25	24
Frelinghuysen	2	7	8	16	13	6	6	3	4	5	7	14	10	11	11
Greenwich	3	14	19	17	25	8	10	5	6	10	12	10	10	11	17
Hackettstown	51	45	48	47	43	26	14	31	38	14	36	42	58	35	39
Hardwick	6	6	7	4	2	2	1	1	0	1	9	12	6	6	6
Harmony	28	30	37	34	33	2	4	5	2	6	19	18	22	37	18
Hope	5	11	9	10	13	5	5	4	1	6	11	16	13	20	11
Independence	11	18	7	15	13	1	6	4	7	4	11	10	7	14	24
Knowlton	24	27	23	26	29	8	19	5	17	9	25	19	22	19	20
Lopatcong	8	17	7	12	14	....	0	1	0	1	11	11	11	7	7
Mansfield	12	16	19	21	19	8	8	5	5	5	15	23	32	33	26
Oxford	65	62	97	64	69	27	17	31	20	11	48	63	54	56	54
Pahaquarry	3	1	4	1	4	....	0	0	0	0	4	8	4	1	2
Phillipsburg	168	196	164	273	235	162	206	196	143	152	151	158	213	183	189
Pohatcong	32	32	116	79	38	65	40	24	15	15	51	32	55	38	24
Washington Borough	54	57	48	46	39	45	29	45	34	37	47	37	43	46	50
Washington Township	20	21	13	22	15	9	9	1	2	1	13	15	15	17	5
						*3	*3	*1							

*Marriage certificates received from County Clerk in which the places where the marriages were performed are not stated.

SUMMARY.

NAME OF PLACE.	BIRTHS.					MARRIAGES.					DEATHS.				
	YEARS.					YEARS.					YEARS.				
	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912	1908	1909	1910	1911	1912
Atlantic County	1165	1167	1226	1483	1526	735	890	822	729	769	991	1077	1228	1213	1170
Bergen County	2401	2658	3074	3096	3223	789	866	919	888	962	1431	1534	1744	1655	1663
Burlington County	1047	1073	1095	1190	1239	448	425	448	384	497	1107	976	1101	1042	1031
Camden County	2678	2403	2828	3144	2949	2964	3231	2339	1938	1607	2180	2110	2349	2282	2241
Cape May County	358	346	349	387	456	144	134	141	175	156	221	254	295	253	225
Cumberland County	917	922	998	1030	958	372	418	400	378	409	746	740	783	894	798
Essex County	11614	11744	13438	14255	14529	4339	5144	5309	4800	5378	7015	7499	8072	7681	7658
Gloucester County	642	590	610	716	727	217	243	262	231	241	446	522	496	539	483
Hudson County	11211	10210	11519	12280	12541	8405	9770	8496	7398	7639	8343	8200	8753	8648	8011
Hunterdon County	439	467	533	548	554	191	209	221	196	188	438	446	489	506	491
Mercer County	1470	1709	1944	2288	3223	1006	1116	1237	1073	1310	1980	1937	2350	2176	2084
Middlesex County	1853	2289	2875	3227	3282	965	1131	1234	1104	1345	1492	1520	1759	1721	1855
Monmouth County	1345	1418	1594	1622	1745	780	784	737	677	841	1247	1339	1473	1455	1556
Morris County	1034	1131	1262	1347	1330	429	486	511	413	516	1119	1240	1263	1253	1164
Ocean County	296	301	284	317	298	150	161	140	142	152	288	297	328	280	271
Passaic County	4728	4574	5288	5389	5643	2279	2460	2489	2500	2651	2940	2986	3087	3120	3152
Salem County	430	463	433	508	510	147	227	182	152	174	335	312	357	356	343
Somerset County	572	467	656	732	760	244	244	264	214	266	438	472	520	537	545
Sussex County	308	352	433	442	453	160	185	174	150	163	338	390	375	370	335
Union County	2345	2588	2787	3291	3343	973	1180	1189	1131	1247	1952	1944	2022	2015	2099
Warren County	552	636	716	841	784	418	420	398	341	310	550	564	650	616	597
	47405	47508	53942	58133	60073	26155	29724	27912	25014	26821	35597	36359	39494	38612	37772

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland.	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Typhoid fever	1	15	11	23	22	1	6	45	10	41	6	43	21	28	6	3	15	3	1	1	24	3	328
Typhus fever	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Relapsing fever	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malaria	4	....	1	....	4	....	....	2	3	3	1	....	1	3	1	....	....	1	3	2	3	1	29
Including: Malaria cachexia	4A	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Smallpox	5	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2
Measles	6	....	18	....	4	....	1	67	....	44	1	11	44	6	13	....	54	....	11	....	21	1	296
Scarlet fever	7	1	7	5	5	....	....	24	2	49	....	2	1	9	....	....	20	....	2	4	14	1	146
Whooping cough	8	3	7	4	6	1	11	33	....	68	1	3	18	9	9	....	11	....	11	2	10	4	211
Diphtheria and croup	9	15	18	12	43	....	4	93	3	94	2	15	20	14	8	5	38	....	7	....	19	2	412
Including: Croup	9A	....	1	1	12	1	3	7	....	24	3	....	5	....	3	1	3	....	1	....	1	3	69
Influenza	10	1	6	3	3	....	3	8	2	2	1	4	5	5	7	1	3	2	1	4	2	7	70
Miliary fever	11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Asiatic cholera	12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cholera nostras	13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dysentery	14	5	2	1	4	2	4	14	6	12	1	4	7	11	2	2	19	3	4	....	3	6	112
Plague	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yellow fever	16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Leprosy	17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Erysipelas	18	3	1	1	4	....	....	33	1	32	....	3	2	1	1	1	7	....	1	2	4	....	97
Other epidemic diseases	19	....	2	....	1	....	....	5	....	....	....	1	1	....	1	....	....	....	1	....	....	1	13
Purulent infection and septichaemia	20	1	4	1	3	....	3	8	1	6	1	1	2	1	....	1	3	1	1	1	2	1	42
Glanders	21	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anthrax	22	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Rabies	23	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	1	....	....	....	....	....	4
Tetanus	24	....	....	1	3	....	2	7	3	9	1	2	....	5	2	....	1	2	....	....	3	1	42
Mycoses	25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pellagra	26	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	2
Beriberi	27	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuberculosis of the lungs	28	84	112	83	204	8	63	867	36	954	28	235	143	112	86	27	252	36	38	17	193	44	3622
Acute milary tuberculosis	29	2	6	....	11	1	4	10	2	17	1	7	1	8	2	....	6	....	....	1	6	1	86
Tuberculous meningitis	30	4	14	3	11	2	3	72	2	71	1	14	4	3	6	1	14	1	2	2	19	1	250
Abdominal tuberculosis	31	3	10	6	9	1	2	23	1	18	....	11	3	6	4	1	12	1	....	1	5	2	119
Pott's disease	32	....	1	....	....	....	....	2	....	5	....	1	....	....	....	....	1	....	....	....	1	....	11
White swellings	33	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Tuberculosis of other organs	34	3	2	1	5	....	1	14	....	9	1	6	3	4	....	....	4	....	....	....	4	2	59

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland.	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Disseminated tuberculosis	35	2	....	....	2	1	....	3	....	3	3	3	3	....	3	....	1	1	2	....	1	2	30
Rickets	36	3	....	....	1	....	....	6	....	4	....	1	1	....	1	....	....	....	....	....	1	....	18
Syphilis	37	4	5	3	10	....	....	19	....	23	1	12	1	4	....	....	7	1	2	....	6	....	98
Gonococcus infection	38	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Cancer and other malignant tumors of the buccal cavity	39	3	2	5	6	1	....	22	1	20	1	6	3	5	2	1	5	....	2	....	1	1	87
Cancer and other malignant tumors of the stomach, liver	40	23	48	23	47	6	22	208	14	173	17	46	38	43	31	8	82	10	11	10	69	11	940
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41	11	8	9	12	1	7	51	5	50	2	14	13	7	10	2	23	4	8	3	21	3	264
Cancer and other malignant tumors of the female genital organs	42	15	17	7	26	3	4	73	2	56	4	11	13	12	7	2	24	4	2	1	19	2	304
Cancer and other malignant tumors of the breast	43	9	15	5	12	2	3	42	4	29	2	11	3	10	11	....	14	3	....	1	15	5	196
Cancer and other malignant tumors of the skin	44	1	4	3	2	....	1	9	3	8	2	4	4	3	3	....	5	2	1	1	2	2	60
Cancer and other malignant tumors of other organs or of organs not specified	45	2	9	2	12	2	5	31	3	40	2	7	12	6	5	1	18	2	1	2	11	2	175
Other tumors (tumors of the female genital organs excepted)	46	1	2	1	3	....	1	5	....	6	....	1	1	1	....	....	5	1	....	....	....	1	29
Acute articular rheumatism	47	4	5	4	5	1	1	15	....	28	2	4	3	5	4	1	3	1	1	1	3	....	91
Chronic rheumatism and gout	48	....	....	....	3	....	....	3	....	3	....	....	....	....	2	....	1	....	....	....	1	....	13
Scurvy	49	....	....	....	....	....	....	1	....	....	....	....	1	1	....	....	1	....	....	....	2	1	7
Diabetes	50	12	12	9	16	1	5	59	3	61	2	20	13	13	17	3	24	2	7	3	17	9	308
Exophthalmic goitre	51	1	....	....	2	....	1	6	....	1	....	....	1	1	....	....	1	....	....	1	4	....	19
Addison's disease	52	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	1	....	1	....	4
Leuchaemia	53	2	....	2	....	1	....	13	....	9	....	2	1	2	3	....	3	....	2	....	4	....	44
Anaemia, chlorosis	54	4	4	2	5	5	4	20	....	10	....	4	3	9	3	1	8	2	....	1	6	2	93
Other general diseases	55	5	3	....	5	....	1	18	2	7	2	7	2	2	5	2	6	....	1	1	1	1	71
Alcoholism (acute or chronic)	56	21	7	10	8	....	....	81	6	43	....	16	25	17	4	1	23	4	2	....	14	3	285
Chronic lead poisoning	57	....	....	....	1	....	....	1	....	2	....	1	2	1	....	....	....	....	....	....	....	....	8
Other chronic occupation poisonings	58	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Other chronic poisonings	59	....	....	....	....	....	1	1	....	2	1	....	....	....	....	....	....	....	....	....	....	....	5
Encephalitis	60	1	....	1	6	....	....	9	....	5	....	....	3	3	....	....	2	....	1	....	2	2	35
Simple meningitis	61	11	19	5	16	....	12	56	2	90	3	14	23	14	12	....	31	1	5	2	8	8	332
Including: Cerebrospinal fever	61A	1	6	1	....	1	1	19	....	28	1	4	3	1	1	1	9	....	....	4	4	....	85

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland.	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Locomotor ataxia	62	3	....	4	1	....	5	7	....	14	....	1	3	2	1	....	3	....	....	3	....	....	47
Other diseases of the spinal cord	63	8	9	1	7	1	2	22	1	17	8	7	12	5	5	....	11	1	2	....	4	6	129
Cerebral haemorrhage, apoplexy	64	87	105	93	146	25	62	444	40	470	61	145	89	142	77	33	134	31	44	28	136	67	2459
Softening of the brain	65	3	3	4	6	....	3	5	....	8	1	8	1	6	1	....	2	....	4	2	1	1	59
Paralysis without specified cause	66	15	14	15	43	4	25	55	7	59	14	37	16	29	8	11	20	12	11	2	14	15	426
General paralysis of the insane	67	1	....	....	....	....	....	7	....	2	....	1	....	....	5	....	....	....	....	....	....	....	16
Other forms of mental alienation	68	2	1	7	11	....	3	35	....	39	1	5	1	2	54	1	7	....	3	3	4	4	183
Epilepsy	69	4	6	3	7	....	7	10	1	16	2	3	1	3	5	1	5	1	17	2	4	....	98
Convulsions (nonpuerperal)	70	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Convulsions of infants	71	4	15	8	12	1	5	51	2	93	2	21	26	8	6	3	26	4	2	1	17	7	314
Chorea	72	....	1	1	2	....	....	3	....	2	....	....	....	....	....	....	7	....	....	....	....	....	16
Neuralgia and neuritis	73	....	1	....	2	....	....	2	....	3	1	....	....	3	....	....	1	....	....	....	....	....	13
Other diseases of the nervous system	74	....	3	....	1	....	6	10	1	10	2	2	....	1	2	....	4	....	1	....	2	1	46
(Other) diseases of the eyes and their adnexa	75	1	....	....	....	....	....	1	....	1	....	....	....	....	....	....	1	....	....	....	....	....	4
Diseases of the ears	76	....	....	....	1	....	1	5	1	2	....	3	1	1	....	1	....	....	....	1	2	....	19
Pericarditis	77	3	3	....	1	....	....	7	....	12	3	1	3	3	....	....	3	....	2	1	3	2	47
Acute endocarditis	78	54	62	31	67	10	13	392	5	359	15	52	23	49	44	41	124	1	31	10	117	15	1478
Organic diseases of the heart	79	77	128	77	164	19	81	457	40	430	55	142	112	114	84	24	257	39	31	23	96	53	2503
Angina pectoris	80	8	13	8	10	1	5	34	10	27	2	18	4	13	13	2	8	1	2	3	11	2	195
Diseases of the arteries, atheroma aneurysm, etc	81	14	35	13	31	3	10	120	9	118	13	67	18	30	17	4	34	5	8	7	27	9	592
Embolism and thrombosis	82	1	3	1	4	....	3	15	1	6	....	1	5	7	2	....	6	....	1	1	6	1	64
Diseases of the veins (varices, haemorrhoids, phlebitis, etc)	83	1	2	....	....	....	....	4	....	1	1	....	2	....	1	....	1	1	....	....	....	....	14
Diseases of the lymphatic system (lymphangitis, etc)	84	....	1	....	1	....	....	4	1	3	....	1	1	....	2	....	1	1	....	....	1	1	18
Haemorrhage; other diseases of the circulatory system	85	1	....	1	1	....	....	1	....	....	....	1	....	....	1	....	4		....	....	1	...	11
Diseases of the nasal fossae	86	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diseases of the larynx	87	3	3	1	....	1	2	6	....	10	1	2	2	....	....	....	2	....	1	....	2	1	37
Diseases of the thyreoid body	88	....	....	....	....	....	....	3	....	....	....	1	....	....	....	....	....	....	....	....	....	....	4
Acute bronchitis	89	13	17	14	18	1	10	98	9	66	5	13	26	17	9	2	46	6	3	5	19	8	405
Chronic bronchitis	90	4	8	2	8	3	3	30	1	31	1	5	3	4	3	....	6	....	....	....	7	3	122
Bronchopneumonia	91	26	68	13	39	3	16	270	3	305	7	74	45	29	25	7	156	5	24	9	....	16	1205

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland.	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Pneumonia	92	69	115	87	183	18	45	590	37	628	26	137	141	68	99	19	295	21	36	51	162	32	2859
Pleurisy	93	5	5	4	11	....	5	40	2	41	3	14	6	8	4	2	16	1	4	1	15	2	189
Pulmonary congestion, pulmonary apoplexy	94	13	16	3	16	5	11	55	8	61	4	18	10	10	3	....	33	1	12	1	21	2	303
Gangrene of the lung	95	....	....	....	....	....	....	3	....	2	....	1	1	....	....	....	1	1	....	....	1	....	10
Asthma	96	8	4	5	3	3	1	36	2	28	2	9	3	5	3	4	10	1	....	....	5	....	132
Pulmonary emphysema	97	....	1	1	....	....	1	3	1	2	....	....	....	....	....	....	1	1	....	....	1	....	12
Other diseases of the respiratory system (tuberculosis excepted)	98	....	....	1	2	....	1	6	....	7	....	4	3	....	3	....	2	....	....	....	2	1	32
Other diseases of the mouth and annexa	99	1	....	....	2	....	....	5	....	1	1	2	....	1	....	....	1	....	....	....	....	....	14
Diseases of the pharynx	100	1	7	....	....	....	1	10	....	9	....	2	2	1	....	....	3	....	1	....	2	1	40
Diseases of the oesophagus	101	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2
Ulcer of the stomach	102	3	3	....	8	1	3	20	2	23	....	6	5	2	4	1	7	....	....	1	8	....	97
Other diseases of the stomach (cancer excepted)	103	15	33	21	18	3	17	92	13	77	3	30	14	24	20	2	30	6	6	9	16	14	463
Diarrhoea and enteritis (Under 2 years)	104	52	102	68	109	15	36	444	21	492	9	126	250	76	46	3	251	12	18	12	184	30	2356
Diarrhoea and enteritis (2 years and over)	105	17	14	13	27	3	18	95	8	139	17	19	27	24	21	2	42	3	8	6	23	11	537
Ankylostomiasis	106	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intestinal parasites	107	....	2	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	4
Appendicitis and typhlitis	108	2	6	1	18	1	4	81	....	51	2	13	7	17	7	....	26	....	....	2	15	....	253
Hernias, intestinal obstructions	109	14	11	4	19	....	6	46	....	57	7	15	14	14	5	....	23	....	2	3	9	1	250
Other diseases of the intestines	110	3	2	1	6	....	3	9	3	18	1	8	4	7	1	....	3	1	4	....	4	1	79
Acute yellow atrophy of the liver	111	....	1	....	....	....	....	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....	5
Hydatid tumor of the liver	112	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cirrhosis of the liver	113	9	12	10	30	2	7	90	1	103	4	13	9	15	3	1	28	6	1	2	12	4	362
Billiary calculi	114	....	....	1	....	....	....	1	....	....	....	1	....	....	....	....	....	1	....	....	....	....	4
Other diseases of the liver	115	5	6	3	12	1	3	19	1	19	2	9	5	4	3	....	8	1	2	1	4	....	108
Diseases of the spleen	116	....	....	....	1	....	....	4	....	....	....	....	....	....	....	....	....	....	1	....	....	....	6
Simple peritonitis (nonpuerperal)	117	3	1	1	4	....	....	11	....	10	2	4	2	9	3	....	3	1	1	1	4	....	60
Other diseases of the digestive system (cancer and tuberculosis excepted)	118	1	....	....	....	....	1	6	....	5	1	....	1	....	1	....	....	....	....	....	....	....	16
Acute nephritis	119	13	9	6	18	1	7	68	4	76	4	17	10	9	11	....	32	1	5	....	14	2	307
Bright's disease	120	117	94	74	186	20	64	486	52	567	35	94	77	147	77	32	168	24	35	12	116	35	2512
Chyluria	121	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	2
Other diseases of the kidneys and annexa	122	1	1	1	4	....	2	8	2	9	....	3	....	1	....	....	1	....	1	....	3	....	37

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland.	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Calculi of the urinary passages	123	....	1	3	....	1	2	9	....	8	1	4	1	2	1	....	5	....	....	....	3	1	42
Diseases of the bladder	124	2	5	2	11	2	3	15	1	10	....	2	3	7	6	2	3	1	2	1	6	....	84
Other diseases of the urethra, urinary abscess, etc.	125	....	1	....	....	....	....	6	....	2	....	2	1	....	....	....	1	....	....	....	....	....	13
Diseases of the prostate	126	2	1	2	1	1	....	8	....	12	....	6	1	1	2	....	5	....	1	1	2	....	46
Nonvenereal diseases of the male genital organs	127	....	1	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	3
Uterine haemorrhage (nonpuerperal)	128	....	....	....	....	....	....	....	....	1	....	2	....	....	....	....	....	....	....	....	....	....	3
Uterine tumor (noncancerous)	129	1	1	3	1	....	2	7	....	3	....	3	2	3	1	....	2	1	....	1	....	....	31
Other diseases of the uterus	130	2	2	....	1	....	1	13	....	6	....	3	1	1	....	1	1	....	....	1	1	....	34
Cysts and other tumors of the ovary	131	1	....	3	....	....	....	2	....	3	....	1	....	....	2	....	2	....	....	1	....	....	15
Salpingitis and other diseases of the female genital organs	132	1	....	3	1	....	....	9	....	9	1	5	1	3	....	....	4	....	....	....	1	....	38
Nonpuerperal diseases of the breast (cancer excepted)	133	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2
Accidents of pregnancy	134	3	....	1	5	....	1	12	1	11	1	3	2	....	2	....	8	....	....	....	3	....	53
Puerperal haemorrhage	135	2	....	3	8	1	1	17	1	12	....	7	4	4	....	....	6	....	....	1	7	1	75
Other accidents of labor	136	2	2	2	4	....	1	17	....	11	1	7	6	5	....	1	3	....	1	2	3	2	70
Puerperal septichaemia	137	1	5	3	2	....	....	26	1	24	1	7	4	6	1	....	10	....	1	....	13	2	107
Puerperal albuminuria and convulsions	138	2	2	2	8	....	3	20	....	27	1	2	5	2	4	2	10	....	....	1	3	2	96
Puerperal phlegmasia alba dolens, embolus, sudden death	139	....	....	....	....	....	....	2	....	3	....	....	2	....	....	....	1	....	....	....	2	1	11
Following childbirth (not otherwise defined)	140	1	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	3
Puerperal diseases of the breast	141	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Gangrene	142	2	4	2	4	....	3	11	....	10	2	5	3	4	3	1	2	1	1	....	1	2	61
Furuncle	143	....	....	....	....	....	....	6	....	....	1	....	2	....	....	....	....	....	....	....	....	....	9
Acute abscess	144	....	3	....	....	....	....	5	....	9	....	3	2	2	....	....	1	1	....	....	3	....	29
Other diseases of the skin and annexa	145	1	5	5	7	....	2	14	1	16	....	3	4	3	2	....	5	....	1	1	3	....	73
Diseases of the bones (tuberculosis excepted)	146	5	....	....	1	....	1	8	....	11	....	3	....	....	3	....	2	....	....	1	3	1	39
Diseases of the bones (tuberculosis and rheumatism excepted)	147	....	....	....	....	....	....	2	....	3	....	....	....	....	1	....	....	....	....	....	1	....	7
Amputations	148	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Other diseases of the organs of locomotion	149	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland.	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Congenital malformations (stillbirths not included)	150	2	2	4	6	...	...	15	...	14	...	3	7	1	...	1	4	1	2	1	4	...	67
Congenital debility, icterus and sclerema	151	43	88	40	126	9	30	342	13	344	20	104	108	71	67	13	166	18	21	13	119	29	1784
Other diseases peculiar to early infancy	152	3	6	7	13	1	7	97	2	36	4	10	12	2	6	1	15	3	4	...	12	5	246
Lack of care	153	...	4	...	1	...	1	9	...	2	...	...	4	5	...	1	1	...	...	...	...	...	28
Senility	154	23	16	32	31	6	7	52	10	46	6	15	12	19	16	6	16	8	11	5	10	4	351
Suicide by poison	155	2	3	2	2	...	3	19	...	19	1	6	1	3	3	...	6	3	1	2	8	...	84
Suicide by asphyxia	156	6	6	...	2	1	...	32	...	27	...	4	...	1	...	...	4	...	...	...	1	1	85
Suicide by hanging or strangulation	157	2	5	4	5	...	1	9	...	17	5	6	5	4	2	...	5	...	1	...	4	3	78
Suicide by drowning	158	1	1	2	1	...	1	2	1	3	...	...	1	...	...	...	1	...	...	1	...	1	16
Suicide by firearms	159	3	9	4	6	1	4	19	...	31	...	3	5	3	...	...	12	1	2	1	5	6	115
Suicide by cutting or piercing instruments	160	...	2	2	...	...	...	6	1	2	1	1	...	2	1	1	3	1	1	...	...	...	24
Suicide by jumping from a high place	161	...	...	...	...	...	...	2	...	2	...	1	...	...	...	...	...	...	...	1	1	...	7
Suicide by crushing	162	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Other suicides	163	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Poisoning by food	164	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2
Other acute poisonings	165	4	3	2	2	...	2	6	1	9	...	...	2	1	2	...	3	1	1	1	4	1	45
Conflagration	166	...	10	1	1	...	...	4	1	10	...	2	1	1	2	...	...	...	...	...	2	3	38
Burns (conflagration excepted)	167	2	8	4	21	...	6	41	1	49	1	17	19	5	6	...	24	1	1	1	13	1	221
Absorption of deleterious gases (conflagration excepted)	168	8	11	...	1	...	...	21	3	43	1	...	3	7	2	...	14	...	...	...	7	1	122
Accidental drowning	169	13	12	13	15	2	8	16	12	74	1	20	34	10	9	6	15	9	4	5	17	7	302
Traumatism by firearms	170	1	1	...	3	...	...	1	...	...	1	3	...	1	1	...	1	...	2	3	1	...	19
Traumatism by cutting or piercing instruments	171	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3
Traumatism by fall	172	8	21	8	31	3	9	82	8	78	9	31	22	17	9	2	28	3	5	6	19	7	406
Traumatism in mines and quarries	173	...	...	...	...	...	...	1	...	...	1	...	...	...	1	...	1	...	...	...	...	...	4
Traumatism by machines	174	...	1	...	1	...	...	4	...	3	...	4	...	...	1	...	...	...	...	...	4	...	18
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	27	46	7	55	2	8	129	9	157	10	44	77	29	28	6	70	4	17	10	70	18	823
Injuries by animals	176	...	2	2	1	...	...	1	...	...	1	1	...	...	2	...	1	...	...	...	1	1	13
Starvation	177	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3
Excessive cold	178	...	3	1	1	...	...	4	1	2	2	...	1	...	...	...	1	...	...	...	3	...	19

TABLE 2.—SHOWING NUMBER OF DEATHS IN NEW JERSEY FROM EACH OF THE CLASSIFIED CAUSES, BY COUNTIES, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

		Atlantic.	Bergen.	Burlington.	Camden.	Cape May.	Cumberland	Essex.	Gloucester.	Hudson.	Hunterdon.	Mercer.	Middlesex.	Monmouth.	Morris.	Ocean.	Passaic.	Salem.	Somerset.	Sussex.	Union.	Warren.	Total.
Effects of heat	179	....	2	3	2	....	1	15	1	14	....	2	5	2	....	....	2	....	2	....	1	1	53
Lightning	180	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	1	3
Electricity (lightning excepted)	181	4	2	....	2	....	....	4	2	6	....	....	....	2	3	....	2	1	....	....	4	....	32
Homicide by firearms	182	3	3	....	9	1	2	14	....	7	....	1	5	4	....	....	7	1	....	1	3	2	63
Homicide by cutting or piercing instruments	183	....	....	....	2	....	....	2	1	2	....	....	....	....	....	....	1	....	....	....	....	....	8
Homicide by other means	184	2	2	2	4	....	....	9	....	2	....	3	2	2	....	....	1	....	....	....	1	1	31
Fractures (cause not specified)	185	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	2
Other external violence	186	....	....	....	1	....	....	2	....	2	1	3	1	....	....	....	2	....	....	....	....	....	12
Ill-defined organic diseases	187	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	......
Sudden death	188	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	......
Cause of death not specified or ill-defined	189	24	22	19	27	7	9	47	3	118	5	20	46	23	21	2	60	6	6	1	23	7	496
		1170	1663	1031	2241	225	798	7658	483	8011	491	2084	1875	1556	1164	271	3152	343	545	335	2099	597	37,772

TABLE 3.—SHOWING OCCUPATIONS OF DECEDENTS IN CITIES OF OVER 5,000 INHABITANTS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912.

CITIES.	Estimated population of cities.	Agents.	Architects.	Artists.	Bakers.	Bankers, &c.	Barbers.	Bartenders, &c.	Blacksmiths.	Boatmen.	Boiler makers.	Bookkeepers.	Brass and iron workers.	Brickmakers.	Butchers.	Buttonmakers.	Chauffeur.	Chemists.	Cigarmakers.	Civil engineers.	Clergymen.	Clerks.	Constables and policemen.	Contractors and carpenters.	Cooks.	Coopers.	Dentists.	Dressmakers.	Drivers, &c.	Druggists.	Dyers.	Editors and journalists.	Electricians.	Engineers.	Engravers.	Expressmen.	FACTORY EMPLOYES. Males.	FACTORY EMPLOYES. Females.
Asbury Park	12,400				1		1													1		1		4				1	1						1			
Atlantic City	49,573			1	2	2	3	4		3		3	1		4		2		2		1	14	2	7	11			3	8		1		3	2			1	
Bayonne	60,859						2	5	1	6	8	1					1					16	3	11	3				7		1		4	4			1	
Bloomfield	16,431											1										5		3					3				1				1	1
Bordentown	4,321							1		1					1							1												1				
Bridgeton	14,443				1	1	1						2		1						1	1		3				2				1		1				1
Burlington City	8,455														1							1		2		1	1							1				
Camden City	99,008				6		4	6	4	2	2	3	10	1	3				8	1	1	13	2	21	2			2	13	1			3	10	1	1	1	5
Dover	7,914								1			1	1		1							2		5				1	1								1	1
East Orange	38,049		1		1	5	1					3							1	1	1	4		7			1	3	3	3			3	2				
Elizabeth	78,569				1		1	4	4	6	1	2	1		3				2		2	21	2	22	2	2		2	14	1			1	6			2	1
Englewood	10,725			1											1									1	1			1				1		1		1		
Garfield	12,261						1								1				1			1		1							1						4	1
Gloucester City	10,025						2		1					1								4		4				1						1				1
Guttenberg	6,081														2				2			1		4										1			1	
Hackensack	15,231					2			1			1			1			1			1	5	1	1					4				1	1	1	1		
Hammonton	5,390			1	1							1												3													1	
Harrison	15,168			1					1	1		1	2									4	1	1	1				2								2	
Hoboken	72,266		1	2	3	1	1	18	4	34	3	2	6		7	1			1	1	1	19	3	15	10	1		4	22	2		1	5	8	2	1	2	5
Irvington	13,756				2			1					2		1	1		1	1		1	3		4	1				2					1				
Jersey City	281,811		1	5	3	2	9	30	7	36	6	10	20		8			1	11	1	7	123	13	61	11	8	2	8	91	7	1		12	18	3	6	6	10
Kearny	20,682					2		2	1			1				1						5	1	2		1		2	1					1			2	2
Lambertville	4,513																							2				1	1									
Long Branch	13,744	1			1				3			2	1		2		1				1	3	1	5	2			4	11	1			1	3		2	1	1
Millville	12,678					1	1		1	1												2		1										1			1	1
Montclair	23,622				2	3	2										2				2	4	2	5	2			2	7			1		4			2	

TABLE 3.—SHOWING OCCUPATIONS OF DECEDENTS IN CITIES OF OVER 5,000 INHABITANTS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

CITIES.	Farmers.	Firemen.	Fishermen.	Florists, etc.	Foundrymen.	Glassblowers.	Glassworkers.	Grinders, &c.	Grocers.	Hatters.	Hotelkeepers.	Housekeepers and housewives.	Icemen.	Janitors, &c.	Japanners.	Jewelers.
Asbury Park			1								3	28		1		2
Atlantic City	4	5	2			1				1	15	166		2		1
Bayonne		3		1							1	166		1		1
Bloomfield	2					1				2		24				
Bordentown									1			13		1		
Bridgeton	8			1		1	4					59		3		
Burlington City	4				2						2	39				
Camden City	19	5		2	6	2	1	1	2	1	3	369		11		
Dover	1	1			1						1	22	1			
East Orange										2	1	59	1	1		1
Elizabeth	3	6	1	11	7			1	1		3	200		9		2
Englewood	2			1					1			36		2		
Garfield	1											17				
Gloucester City	2											35		1		
Guttenberg												13				
Hackensack	1			1								48				
Hammonton	6											14				
Harrison					2							39		1		
Hoboken	4	8	1	1				1	1	2	4	253	2	13		2
Irvington	2			3					2			39				2
Jersey City	3	15	3	8	2		3	2	7		13	884	2	29	1	7
Kearny				1	1							48		1		
Lambertville											1	19				
Long Branch	6	1	4	1					1		2	76		1		
Millville	4					5	7		2		1	43				
Montclair	1			4					1	1		65	1	2		

CITIES.	Laborers.	Laundresses.	Laundrymen.	Lawyers.	Leatherworkers.	Lettercarriers.	Linemen.	Linoleumworkers.	Locksmiths.	Machinists.	Managers, &c.	Manufacturers.	Masons.	Merchants.	Milkmen.	Millers.	Miners.
Asbury Park	6											1	2	7			
Atlantic City	34	3		3		1	3			3	6	3	3	14	4		1
Bayonne	64									10	7		2	3			
Bloomfield	4									2		1		1			
Bordentown	3									1	1					1	
Bridgeton	15									1	1	2		4			
Burlington City	13						1				1		1				
Camden City	81	1		4	8	1	1			20	5	7	10	13			
Dover	4									1				1			
East Orange	9				1						3	3	3	2			
Elizabeth	64					2	5			26	10	1	5	7	1		1
Englewood	5	3									2		1	4	1		
Garfield	9	1									2						
Gloucester City	8									1	1			1			
Guttenberg	6																
Hackensack	15	1								1	1	3	1	1			
Hammonton	1									1			1				
Harrison	19				1		1						2	2			
Hoboken	108	1		2	4		1			2	11	1	9	16			
Irvington	2				1					1			2				
Jersey City	270	2	2	1	2	4				27	20	8	16	35	3		
Kearny	6						1			3		1	2				
Lambertville	7					1				1			1	4			
Long Branch	30	2								1		1	1	1			
Millville	9											1		3	1		
Montclair	13	1		1						1	4	4	1	8			

TABLE 3.—SHOWING OCCUPATIONS OF DECEDENTS IN CITIES OF OVER 5,000 INHABITANTS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

CITIES.	Musicians.	Nurses.	Painters.	Paperhangers.	Photographers.	Physicians.	Plumbers.	Porters, &c.	Potters.	Printers.	Railroad employes.	Real estate and insurance.	Rubberworkers.	Sailors.	Salesmen.	Shipbuilders.	Shoemakers.	Silkworkers.	Stonecutters.	Tailors.	Tanners.	Teachers.	Telegraphers.	Tileworkers.	Tinsmiths.	Trunkmakers.	Undertakers.	Upholsterers.	Waiters.	Watchmakers.	Weavers.	Wheelwrights.	Wireworkers.	All other occupations.	All other professions.	All other trades.
Asbury Park			2			1					1				1		1			1			1		1				4					1		
Atlantic City	2	2	6	3		5	1	2			5	6		2	9	1	2			2		2	1		1			2	17					11	2	2
Bayonne			6				4		1	2	5	3		4	2		3			1			1		1		1						1	15	1	2
Bloomfield			3				1			1		2		1																	1			2		
Bordentown			1						1		1						1					1			1		1									1
Bridgeton										1		1		1	1							2	1							1				3		
Burlington City			1			1									1		4																	1		
Camden City		6	3	3		2	11	1	2	12	16	2		4	13	12	9			2		3			3		2	1	3		3		1	21	1	11
Dover			1							1							1					1												1		1
East Orange		1	2			2				2		4			4							2						1	1			1		3	2	
Elizabeth	1	1	8				4	3		1	16	4		1	8	2	2			3	1	1						1						14		4
Englewood			2								1	1			1		2			1		1												3		1
Garfield											1		1				1			1											3			1		
Gloucester City			1				3								1	1																		2		1
Guttenberg			1				1				1			1																						2
Hackensack			4				1			1	1	3											1											3		1
Hammonton		1									1						1																	1		
Harrison							2				1			1	1	1																		6		
Hoboken	3		4			1	2	7		5	10	2		7	12	1	5	2		4	1				2				1		3			19	2	8
Irvington			1											1	5		1			1							1							1	1	
Jersey City	1	2	31			4	18	10		8	79	10	2	12	40	5	13	6	7	23		4	1		8		2	2	2	5	1	1		64	3	19
Kearny	1		1			1				1	1	1			1	1			1	1		1		1							1		1	6		
Lambertville							1																										1			
Long Branch		1	3			1	2	3		1	7	2		1			1								1		1		1		1			6		2
Millville			1	1						1	1				1					1							1				1			1		
Montclair		2	4					1	1	2	4	2			2							1	1		1						1			4	1	

TABLE 3.—SHOWING OCCUPATIONS OF DECEDENTS IN CITIES OF OVER 5,000 INHABITANTS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

CITIES.	Estimated population of cities.	Agents.	Architects.	Artists.	Bakers.	Bankers, &c.	Barbers.	Bartenders, &c.	Blacksmiths.	Boatmen.	Boiler makers.	Bookkeepers.	Brass and iron workers.	Brickmakers.	Butchers.	Buttonmakers.	Chauffeur.	Chemists.	Cigarmakers.	Civil engineers.	Clergymen.	Clerks.	Constables and policemen.	Contractors and carpenters.	Cooks.	Coopers.	Dentists.	Dressmakers.	Drivers, &c.	Druggists.	Dyers.	Editors and journalists.	Electricians.	Engineers.	Engravers.	Expressmen.	FACTORY EMPLOYES.	
																																					Males.	Females.
Morristown	12,651				1	1			1				2		2							1		2	1				3					1			1	
Newark	373,141		2	1	10	5	13	43	14	5	1	17	56		34	6	3	3	10	6	7	94	11	88	23	3	1	19	103	3			14	18	4	3	41	16
New Brunswick	23,490						1	2	3			1	2	1	6				2			9	1	10				1	3				1				4	1
North Plainfield	6,317					1													1			2		2				1				1						
Nutley	6,590																				1	2	1	2										1			1	
Orange	31,042				2		3	1							3			1	1			10		7	3		1	3	15	1								1
Passaic City	61,547			1	1		1	2	2			3	1		2				1	1	2	7		11			1	2	4		2			1			19	13
Paterson	131,228				3	1	1	10	8		4	1	13		7		3		2	4	3	19	1	38	1		1	6	22	1	27	2	2	4	1		6	7
Perth Amboy	34,611						1		2	4	1		2						1			2		3					3					1				1
Phillipsburg	14,123							1	1			1			1					1		1		5					1		1			4				
Plainfield	21,383											1	1								1	3	1	9	1				3					1	1			2
Princeton	4,779																					1		1					1									
Rahway	9,612					1															2	3	2	4				1	1								1	
Red Bank	7,852						2								1								1	1	1			1	3	1				1				
Ridgewood	5,990					1																1		1										1				1
Roosevelt	5,786												1																					1				
Rutherford	7,776					2						1										3						1					2	2	1			
Salem City	6,682						1		1			1										2		1					4					1				
Somerville	5,171						1	1				1	2								3	1	1						1									
South Amboy	7,307									5		1										2								1								
South Orange	6,447					1			1													1		1														
Summit	7,762																				1	3		3	1				5	1		1	1					
Town of Union	22,630			1	3	1		3	1		1				1				1	1		4		5	1			1	3					2		1		
Trenton	101,869				3	1	9	2	5	2	2	3	8		3		1		5		2	20	1	27	3	2		7	13	1		1	1	8				1
Vineland	5,558																						1	3					2			1						
Westfield	6,882											1					1					2							1									
West Hoboken	37,931			1	1	1		10	1	1			2		3							5	1	9	2				2	1				2	1		2	1
West New York	16,106				1		1	3	1	2				1	2						1	3		4	1				1									
West Orange	12,223							2	1			2			1							3		1									1	1	1			

TABLE 3.—SHOWING OCCUPATIONS OF DECEDENTS IN CITIES OF OVER 5,000 INHABITANTS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

CITIES.	Farmers.	Firemen.	Fishermen.	Florists, etc.	Foundrymen.	Glassblowers.	Glassworkers.	Grinders, &c.	Grocers.	Hatters.	Hotelkeepers.	Housekeepers and housewives.	Icemen.	Janitors, &c.	Japanners.	Jewelers.	Laborers.	Laundresses.	Laundrymen.	Lawyers.	Leatherworkers.	Lettercarriers.	Linemen	Linoleumworkers.	Locksmiths.	Machinists.	Managers, &c.	Manufacturers.	Masons.	Merchants	Milkmen.	Millers.	Miners.
Morristown	2	...	...	4	...	...	...	...	...	1	1	31	...	...	...	1	15	...	...	...	1	...	1	...	...	...	...	...	3	4	1	1	...
Newark	13	13	...	14	9	1	2	21	11	47	5	1227	4	29	4	42	355	7	4	5	46	2	2	1	1	55	27	22	31	39	...	...	1
New Brunswick	4	...	...	3	...	...	...	...	1	...	1	85	...	3	...	1	45	...	...	1	...	...	1	...	...	4	6	1	1	5	...	...	...
North Plainfield	1	...	...	...	...	...	...	...	...	...	1	8	...	...	...	...	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Nutley	1	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...
Orange	1	...	...	6	...	...	...	...	2	30	1	128	...	2	...	2	35	3	1	1	...	...	...	...	...	2	1	2	5	2	...	...	...
Passaic City	1	1	...	...	2	...	...	...	...	1	1	131	...	7	...	...	50	...	...	...	...	...	1	...	...	7	2	2	2	4	1	1	1
Paterson	16	6	...	3	5	...	...	...	7	1	3	416	...	11	...	...	92	...	3	3	1	2	...	...	...	24	4	4	12	20	1	...	1
Perth Amboy	2	1	3	...	...	1	...	...	...	...	...	81	...	4	...	...	55	1	...	...	...	...	...	...	...	...	2	...	2	5	...	...	...
Phillipsburg	2	...	...	...	1	...	...	...	1	...	...	49	...	...	...	...	7	...	...	...	...	...	...	...	...	1	1	...	...	3	...	...	...
Plainfield	2	...	...	9	...	...	...	...	...	...	...	28	...	...	...	...	16	...	...	...	1	...	1	...	...	5	1	...	1	1	...	...	...
Princeton	...	...	...	2	...	...	...	...	...	...	...	11	...	2	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rahway	4	...	...	...	...	...	...	...	...	1	...	41	...	1	...	...	11	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...
Red Bank	2	...	...	2	...	...	...	...	...	...	1	15	...	...	...	...	10	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Ridgewood	1	...	...	1	...	...	...	...	...	...	...	19	...	...	...	...	1	2	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...
Roosevelt	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Rutherford	...	...	...	...	...	...	...	...	...	...	...	20	...	...	...	...	3	...	...	1	...	...	...	...	...	...	...	1	1	3	...	...	...
Salem City	2	...	1	...	...	2	...	...	...	...	2	33	...	...	...	...	12	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...
Somerville	1	...	...	1	...	...	...	...	...	...	...	21	...	...	...	...	9	...	...	1	...	...	...	...	...	1	1	...	3	1	...	...	...
South Amboy	1	...	...	...	...	...	...	...	...	...	1	17	...	...	...	...	8	...	...	...	...	...	...	...	...	...	3	...	1	3	...	...	...
South Orange	1	...	...	1	...	...	...	...	...	...	...	8	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Summit	...	...	...	1	...	...	...	...	...	...	...	27	...	...	...	...	10	1	...	1	...	...	...	...	...	...	1	2	...	3	...	...	...
Town of Union	...	...	...	...	...	...	...	...	...	...	...	62	1	...	...	1	1	...	...	...	...	...	...	...	...	...	1	5	1	1	...	...	...
Trenton	33	2	...	1	4	...	...	1	3	1	4	401	...	13	...	...	119	2	...	2	1	...	2	1	...	9	7	2	10	16	1	...	...
Vineland	3	...	...	...	...	...	1	...	...	...	...	22	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	1
Westfield	1	...	...	...	...	...	...	...	...	...	...	13	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
West Hoboken	...	...	...	2	...	...	2	...	1	2	...	92	...	1	...	1	7	...	...	...	...	...	...	...	...	2	3	...	1	3	...	...	...
West New York	...	...	...	...	...	...	...	...	...	...	1	51	1	1	...	...	5	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...
West Orange	4	...	...	2	...	...	...	...	1	4	...	33	...	...	...	...	5	...	...	...	...	...	...	...	...	1	1	1	2	1	...	...	...

TABLE 3.—SHOWING OCCUPATIONS OF DECEDENTS IN CITIES OF OVER 5,000 INHABITANTS IN NEW JERSEY FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

CITIES.	Musicians.	Nurses.	Painters.	Paperhangers.	Photographers.	Physicians.	Plumbers.	Porters, &c	Potters.	Printers.	Railroad employes.	Real estate and insurance.	Rubberworkers.	Sailors.	Salesmen.	Shipbuilders.	Shoemakers.	Silkworkers.	Stonecutters.	Tailors.	Tanners.	Teachers.	Telegraphers.	Tileworkers.	Tinsmiths.	Trunkmakers.	Undertakers.	Upholsterers.	Waiters.	Watchmakers.	Weavers.	Wheelwrights.	Wireworkers.	All other occupations.	All other professions.	All other trades.
Morristown	1	1	3				1				2				1		1											1						3		
Newark	7	8	44	1	1	5	24	6		13	35	17		4	46	3	34		9	27	8	10	3	1	10	9	6	5	4	1	3	2	3	66	3	36
New Brunswick			3			1	1	1			3		4		2	2	2		1	2		2	1											5	1	2
North Plainfield			3									1					1																	2		
Nutley											1				2																			1		
Orange		1	5				4	1			4	1			5		2			4		2							2					8	1	3
Passaic City			6			2		2		1	2	2	2	1	5		4	1	2	3		2			1				1		6			10		2
Paterson	3	1	16			2	5	1		5	15	7	2	1	15		3	72	3	4		6	1	1	5		1				37	2		13	1	11
Perth Amboy			1				1		1	4				1		2	1			1		1										1		2		2
Phillipsburg			1								6	1			1			4				1									2					
Plainfield		1	2							2	3	2			1							2	1											4	2	1
Princeton		1					2																						1							
Rahway			1								1			1						2		1					1							3		1
Red Bank			5												1		2					1										2		1		
Ridgewood		1					1				1				1			2																2		
Roosevelt											1														1											
Rutherford										2		2					1					2												2		
Salem City			1			2					2																1							2		
Somerville			2			1					1											1								1				4		
South Amboy							1				1												1													
South Orange		1	1							1	1																							1		
Summit					1					1	2				3					1		1									1			3		
Town of Union	1		2				1			2	1				2	1	1	6		1				1	1						1			6		2
Trenton	7	5	10	2	1	2	3		63	5	25	5	17		6		7			4		6	2	1	2			1	4		3	3	20	19		4
Vineland		1	1														4														1			1	1	
Westfield						1	1			1												1												1		
West Hoboken	1		5	1			1			1	2	1			5			12		1					2				2	1	3			6		2
West New York			2				1			1	1	1			1			1		2		1							1					2	4	
West Orange							2								1							1												1		

TABLE 4.—SHOWING OCCUPATIONS OF DECEDENTS IN NEW JERSEY, BY COUNTIES, EXCLUSIVE OF CITIES OF OVER 5,000 INHABITANTS, FOR THE YEAR ENDING DECEMBER 31, 1912.

COUNTIES.	Estimated population of counties, exclusive of cities.	Agents.	Architects.	Artists.	Bakers.	Bankers, &c.	Barbers.	Bartenders, &c.	Blacksmiths.	Boatmen.	Boiler makers.	Bookkeepers.	Brass and iron workers.	Brickmakers.	Butchers.	Buttonmakers.	Chauffeur.	Chemists.	Cigarmakers.	Civil engineers.	Clergymen.	Clerks.	Constables and policemen.	Contractors and carpenters.	Cooks.	Coopers.	Dentists.	Dressmakers.	Drivers, &c.	Druggists.	Dyers.	Editors & journalists.	Electricians.	Engineers.	Engravers.
Atlantic	21,744	...	...	...	...	1	1	2	...	5	...	...	1	...	5	...	...	...	...	...	...	7	...	7	...	...	...	3	1	...	...	...	1	2	...
Bergen	101,219	...	...	1	3	2	4	...	2	2	...	5	2	...	3	2	...	...	...	1	2	19	...	19	...	...	...	2	10	...	...	1	1	3	1
Burlington	55,598	...	...	1	1	5	...	...	4	4	...	...	2	...	...	...	...	...	...	1	1	11	1	8	1	...	...	1	5	1	...	...	...	3	1
Camden	41,186	...	...	...	...	2	2	1	...	...	1	...	4	1	...	...	...	1	1	...	2	12	...	17	...	...	1	2	3	2	...	...	2	4	1
Cape May	20,687	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	2	2	...	6	...	...	...	1	2	...	...	...	2	...	...
Cumberland	23,691	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	3	...	7	...	...	...	1	1	...	...	...	...	...	...
Essex	32,768	...	...	...	...	2	2	...	...	...	...	3	3	...	...	...	...	...	1	...	...	10	...	12	...	...	...	1	5	...	...	1	2	2	...
Gloucester	38,524	...	...	...	1	...	...	...	3	1	...	2	...	1	...	...	...	...	1	...	1	2	1	10	1	1	...	1	4	1	...	1	...	2	...
Hudson	38,638	...	...	1	...	1	5	8	2	6	...	1	2	...	3	1	...	...	...	1	...	11	1	20	1	4	...	1	8	1	2	...	...	2	2
Hunterdon	29,180	...	...	...	...	...	2	...	2	...	...	1	2	...	...	...	2	...	...	...	1	4	...	13	...	...	...	...	3	...	...	...	...	1	...
Mercer	25,065	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	1	1	1	...	1	1	3	1	...	...	...	...	...
Middlesex	50,188	...	...	...	2	1	1	1	1	1	...	2	1	4	...	...	...	...	...	...	2	3	...	13	1	...	...	...	1	...	...	...	1	1	1
Monmouth	63,464	...	...	...	2	...	2	...	3	8	...	4	1	1	3	...	2	...	...	...	4	8	...	17	3	1	1	1	12	1	...	...	1	4	...
Morris	56,847	...	1	...	1	4	4	...	1	...	...	7	7	...	1	...	...	...	...	1	2	13	...	19	3	...	...	3	13	2	...	...	1	5	...
Ocean	21,493	...	...	...	...	...	...	...	1	5	1	...	...	...	2	...	...	...	...	1	1	2	...	6	1	...	...	1	1	...	...	...	...	...	...
Passaic	39,145	...	...	...	...	1	...	1	1	...	1	2	1	...	1	...	...	...	1	...	1	6	...	5	...	...	...	...	3	...	1	...	...	1	...
Salem	20,602	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	1	1	...	...	...	...	1	...
Somerset	28,352	...	...	...	1	...	1	...	...	...	...	3	...	...	...	...	1	...	...	...	1	4	1	5	...	...	...	1	3	...	...	...	1	1	...
Sussex	28,163	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	2	1	...	4	...	...	...	2	1	1	...	...	...	1	...
Union	25,181	...	...	...	1	1	1	1	1	...	...	2	1	...	...	...	...	...	...	1	2	6	...	5	...	...	...	2	3	...	...	...	...	1	...
Warren	30,181	...	...	...	1	...	1	...	3	1	...	2	...	...	1	...	...	...	...	...	...	2	...	12	...	...	...	1	...	...	...	...	...	1	...

TABLE 4.—SHOWING OCCUPATIONS OF DECEDENTS IN NEW JERSEY, BY COUNTIES, EXCLUSIVE OF CITIES OF OVER 5,000 INHABITANTS, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

COUNTIES.	Expressmen.	FACTORY EMPLOYES.		Farmers.	Firemen.	Fishermen.	Florists, &c.	Foundrymen.	Glassblowers.	Glassworkers.	Grinders, &c.	Grocers.	Hatters.	Hotelkeepers.	Housekeepers and housewives.	Icemen.	Janitors, &c.	Japanners.	Jewelers.	Laborers.	Laundresses.	Laundrymen.	Lawyers.	Leatherworkers.	Lettercarriers.	Linemen.	Linoleumworkers.	Locksmiths.	Machinists.	Managers, &c.	Manufacturers.	Masons.	Merchants.	Milkmen.
		Males.	Females.																															
Atlantic	..	.....	.....	27	..	..	..	...	...	2	...	...	...	...	86	...	1	...	...	18	1	...	...	...	...	...	...	...	1	1	2	...	2	...
Bergen	3	.....	2	25	2	..	5	...	...	1	...	6	...	6	202	...	5	...	...	48	...	...	1	...	...	...	...	...	4	6	1	4	8	1
Burlington	..	1	3	88	2	1	2	7	...	1	...	1	...	3	166	...	3	...	...	64	...	...	2	1	3	1	...	...	4	1	...	9	7	...
Camden	..	.....	.....	32	..	1	2	...	1	1	...	...	...	...	133	...	3	...	...	38	...	...	...	1	...	1	1	...	4	5	3	8	12	...
Cape May	1	.....	.....	16	..	2	..	...	2	...	...	1	...	2	58	...	...	...	...	8	...	...	...	...	...	...	...	...	...	1	1	...	4	...
Cumberland	..	.....	1	46	..	8	..	1	1	1	...	1	2	...	106	...	...	...	...	24	...	...	...	...	1	...	...	...	1	...	...	1	5	...
Essex	..	1	.....	14	1	..	3	...	...	...	...	5	5	...	114	...	...	...	3	27	...	...	1	4	...	...	...	...	1	1	...	8	6	3
Gloucester	..	.....	.....	50	1	2	..	...	5	3	...	...	...	2	118	...	2	...	...	34	...	...	...	2	1	...	...	...	3	1	1	1	6	...
Hudson	1	4	2	2	2	1	3	...	...	...	...	1	...	3	143	...	6	...	...	75	...	...	...	...	...	...	...	1	5	2	...	4	4	1
Hunterdon	1	.....	.....	75	1	..	..	...	...	...	...	...	...	...	125	...	...	...	...	26	...	...	1	1	...	...	...	...	1	4	1	2	5	...
Mercer	..	.....	.....	33	1	..	1	...	...	...	...	...	...	1	70	...	...	...	1	20	...	...	...	...	...	...	...	...	...	2	1	1	...	...
Middlesex	..	1	2	33	..	..	..	1	...	1	...	1	...	...	92	...	2	...	...	64	2	...	...	...	1	...	1	...	4	1	...	5	4	...
Monmouth	..	.....	2	65	..	7	5	...	...	...	...	1	...	7	210	...	3	...	2	50	3	...	2	...	...	1	...	...	2	1	2	4	1	1
Morris	1	.....	1	51	1	..	3	...	...	...	...	...	...	2	209	1	3	...	...	33	...	...	2	3	...	1	...	...	5	5	...	7	7	...
Ocean	1	.....	.....	16	..	6	..	...	...	1	...	...	...	1	59	...	...	...	...	8	...	...	1	...	...	...	...	...	1	...	...	2	10	...
Passaic	1	3	.....	19	1	..	1	...	...	...	...	1	...	1	87	...	...	...	...	22	...	...	...	...	...	...	...	...	3	3	1	2	3	1
Salem	..	.....	.....	48	..	4	..	...	...	1	...	...	...	...	49	...	...	...	...	11	...	...	...	1	...	...	...	...	...	1	...	1	2	...
Somerset	..	1	.....	47	1	1	2	1	...	1	...	...	1	...	58	...	1	...	...	17	1	...	1	...	...	...	...	...	3	1	...	2	1	...
Sussex	..	3	.....	46	1	..	..	...	...	...	...	...	...	1	106	...	...	...	...	30	...	...	...	...	...	...	...	...	4	1	...	1	1	...
Union	..	.....	.....	9	..	..	2	...	...	...	1	...	...	...	49	...	...	...	2	8	...	...	2	...	...	1	...	...	4	4	...	1	3	...
Warren	..	.....	1	44	1	..	..	1	...	...	...	...	...	...	89	...	...	...	1	34	...	...	...	...	...	...	...	...	1	2	1	4	4	...

TABLE 4.—SHOWING OCCUPATIONS OF DECEDENTS IN NEW JERSEY, BY COUNTIES, EXCLUSIVE OF CITIES OF OVER 5,000 INHABITANTS, FOR THE YEAR ENDING DECEMBER 31, 1912—Continued.

COUNTIES.	Millers.	Miners.	Musicians.	Nurses.	Painters.	Paperhangers.	Photographers.	Physicians.	Plumbers.	Porters, &c.	Potters.	Printers.	Railroad employes.	Real estate and insurance.	Rubberworkers.	Sailors.	Salesmen.	Shipbuilders.	Shoemakers.	Silkworkers.	Stonecutters.	Tailors.	Tanners.	Teachers.	Telegraphers.	Tileworkers.	Tinsmiths.	Trunkmakers.	Undertakers.	Upholsterers.	Waiters.	Watchmakers.	Weavers.	Wheelwrights.	Wireworkers.	All other occupations.	All other professions.	All other trades.
Atlantic	...	...	2	1	3	...	...	1	2	1	...	...	2	2	...	7	2	...	1	...	...	1	...	...	...	...	...	...	2	1	2	...	1	...	...	5	...	1
Bergen	...	...	1	1	5	...	...	...	4	...	...	2	4	4	...	1	8	2	2	...	4	1	...	2	1	...	...	...	...	1	...	...	1	...	...	8	1	4
Burlington	2	...	...	3	3	...	...	1	3	...	...	...	4	2	...	...	4	1	5	...	...	6	...	1	1	...	...	...	...	...	...	4	2	...	1	6	...	...
Camden	...	...	...	2	5	1	...	1	4	1	1	4	2	2	...	1	3	...	...	...	...	1	...	2	...	...	...	...	...	1	...	...	1	1	...	3	2	2
Cape May	...	...	...	...	3	...	...	1	...	...	...	...	1	1	...	3	...	3	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	2	1	...
Cumberland	1	...	...	1	3	...	...	1	...	...	...	...	1	...	...	4	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Essex	...	...	...	...	4	...	...	...	2	...	1	...	...	1	...	...	1	...	3	...	...	2	1	1	...	1	2	...	...	...	2	...	3	...	1	6	1	2
Gloucester	1	...	...	...	3	1	...	...	3	...	...	2	3	1	...	1	5	...	3	...	1	...	...	...	...	...	1	...	...	...	2	...	1	1	...	7	...	1
Hudson	...	...	...	1	10	...	1	...	4	2	...	1	5	1	...	4	5	...	2	7	6	1	...	3	...	...	3	...	...	...	1	1	...	1	...	5	1	5
Hunterdon	1	1	1	...	2	...	...	3	1	...	...	1	...	...	1	...	1	...	1	...	1	1	...	2	...	...	...	...	...	...	...	...	...	1	...	3	...	...
Mercer	1	...	1	1	2	1	...	1	...	...	10	...	1	2	2	...	...	...	2	...	...	1	...	1	...	...	...	...	...	...	...	...	2	...	1	7	...	...
Middlesex	1	1	...	...	2	...	...	2	1	...	...	1	6	2	2	1	1	...	1	...	...	...	...	2	1	...	...	...	1	...	...	...	1	...	...	2	...	...
Monmouth	2	...	...	2	8	...	...	5	3	...	...	1	10	1	...	...	3	1	2	...	1	3	...	5	...	...	1	...	...	1	1	...	...	2	...	9	1	3
Morris	1	11	2	...	7	...	...	2	...	...	...	1	5	4	2	...	5	1	3	4	...	1	...	3	2	...	1	...	1	...	2	...	1	...	...	13	1	4
Ocean	1	...	...	...	...	...	...	1	1	1	1	...	4	...	...	...	...	1	2	...	1	1	...	3	...	...	...	...	1	...	1	...	...	...	...	3	...	1
Passaic	...	...	2	1	2	...	...	...	...	...	...	1	4	...	1	...	2	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	6	...	1	7	1	...
Salem	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	1	...	...	...	...	...	1	...	...	1	1	...	5	...	...
Somerset	...	...	...	...	1	...	...	1	1	...	...	1	3	...	...	1	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	2	2	...
Sussex	...	5	...	...	...	...	...	...	...	...	...	1	3	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	...
Union	1	...	...	...	...	...	...	...	1	...	...	...	2	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	2	...	1
Warren	2	3	...	1	...	...	...	2	1	...	...	1	5	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1

TABLE 5,—SHOWING AGES AT DEATH AND OCCUPATIONS OF DECEDENTS IN DECEMBER

		Agents.	Architects.	Artists.	Bakers.	Bankers, &c.	Barbers.	Bartenders, &c.	Blacksmiths.	Boatmen.	Boiler makers.	Bookkeepers.	Brass and iron workers.	Brickmakers.	Butchers.	Buttonmakers.
Consumption.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
	20 to 30.	...	1	1	1	3	7	5	4	5	3	10	10	...	4	1
	30 to 40.	...	...	2	...	1	4	6	4	6	1	8	8	...	6	1
	40 to 50.	...	...	...	1	3	5	15	2	4	2	2	9	...	8	1
	50 to 60.	...	...	...	2	...	2	1	...	3	2	2	1	...	2	2
	60 to 70.	...	...	...	...	1	1	...	2	2	...	1	3	...	3	...
	70 to 80.	...	...	...	...	1	1	...	1	...	...	1	...	...	...	...
	80 to 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals		...	1	3	4	9	20	27	13	20	8	25	32	...	23	5
Cancer.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20 to 30.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	30 to 40.	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
	40 to 50.	...	...	...	1	1	1	2	1	...	1	1	3	...	...	...
	50 to 60.	...	...	...	1	3	3	3	2	2	...	...	4	...	1	...
	60 to 70.	...	...	...	1	2	...	2	3	3	1	...	1	1	1	...
	70 to 80.	...	...	...	...	2	...	...	1	...	...	2	1	1	...	...
	80 to 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals		...	...	...	3	8	4	7	7	5	2	4	9	2	2	...
Suicide.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20 to 30.	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
	30 to 40.	...	...	...	...	...	1	2	...	1	...	2	3	...	2	...
	40 to 50.	...	...	...	2	...	...	1	...	2	...	...	1	...	1	...
	50 to 60.	...	...	...	1	1	...	3	1	...	...	...	2	...	3	...
	60 to 70.	...	...	...	...	...	1	2	...	...	...	...	...	1	...	1
	70 to 80.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	80 to 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals.		...	...	...	3	1	2	8	1	3	...	3	6	1	6	1
Diseases of the nervous system and of the organs of sense.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20 to 30.	...	...	...	...	...	1	...	1	...	...	1	2	...	...	...
	30 to 40.	...	...	...	...	...	6	4	...	...	...	3	3	...	2	...
	40 to 50.	...	...	1	...	...	1	2	1	2	...	2	3	...	2	...
	50 to 60.	...	...	1	...	3	2	3	2	5	...	2	5	...	2	...
	60 to 70.	...	1	...	1	3	2	...	5	3	2	3	4	1	3	1
	70 to 80.	...	...	...	1	2	2	4	3	1	...	3	2	2	2	...
	80 to 90.	...	...	1	...	...	...	...	3	1	...	...	2	...	...	...
	Over 90.	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Totals.		...	1	3	2	8	14	13	16	12	2	14	21	3	11	
Diseases of the circulatory system.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...
	20 to 30.	...	...	...	...	...	...	3	...	...	...	1	1	...	1	...
	30 to 40.	...	...	...	2	...	1	5	...	1	1	2	4	...	1	...
	40 to 50.	...	...	2	1	1	2	3	2	3	1	2	8	1	2	...
	50 to 60.	...	...	...	...	3	5	3	7	5	1	5	1	...	6	1
	60 to 70.	...	1	1	6	2	...	2	5	5	1	2	6	...	9	...
	70 to 80.	...	...	1	3	7	1	...	2	2	2	3	3	...	4	1
	80 to 90.	...	...	...	1	3	...	...	3	...	...	...	1	...	2	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals.		...	1	4	13	16	10	16	19	16	6	17	24	1	25	2

NEW JERSEY FROM CERTAIN SELECTED DISEASES FOR THE YEAR ENDING 31, 1912.

																				FACTORY EMPLOYES.	
Chauffeur.	Chemists.	Cigarmakers.	Civil engineers.	Clergymen.	Clerks.	Constables and policemen.	Contractors and carpenters.	Cooks.	Coopers.	Dentists.	Dressmakers.	Drivers, &c.	Druggists.	Dyers.	Editors & journalists.	Electricians.	Engineers.	Engravers.	Expressmen.	Males	Females.
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	1	...	...	20	...	1	...	...	...	2	1	...	...	...	...	...	...	...	...	13
5	1	2	2	1	55	1	10	1	2	...	9	28	...	2	...	7	2	3	...	5	11
2	1	6	...	2	45	1	14	2	1	...	7	47	1	1	1	11	4	...	3	7	3
..	...	3	1	...	26	1	16	6	1	...	4	18	2	1	1	1	3	1	1	8	1
..	...	2	...	...	12	1	17	2	...	...	...	13	1	1	...	1	2	1	2	1	2
..	...	...	...	1	6	...	9	...	...	...	1	5	...	1	...	...	...	...	...	1	...
..	...	1	...	...	1	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...
..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	2	15	3	4	165	4	70	11	4	...	23	112	4	6	2	20	13	5	6	22	30
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	1
..	...	...	...	...	4	...	...	...	...	...	...	1	...	...	...	...	2	...	1	2	...
..	...	1	1	1	5	1	3	2	...	...	3	6	1	1	...	...	4	1	...	2	1
..	...	1	...	1	6	...	13	...	1	...	2	6	2	...	...	...	2	...	...	2	...
..	...	...	1	3	6	...	16	...	...	...	...	6	1	1	...	...	...	1	...	2	...
..	...	1	...	1	2	...	10	...	1	...	1	3	...	...	...	...	...	...	1	...	...
..	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	3	2	6	24	1	45	2	2	...	8	23	4	2	...	...	8	2	2	8	2
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
..	...	...	1	...	1	...	1	1	...	...	1	3	...	...	...	1	...	...	1	...	2
..	...	...	...	...	3	...	1	1	...	...	1	2	...	1	1	...	...	...	...	3	...
..	...	...	...	...	3	...	5	...	...	...	1	2	...	1	...	1	...	1	...	1	...
..	...	...	...	...	...	...	3	...	...	...	...	1	...	1	...	...	1	1	...	2	...
..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...
..	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	...	1	...	7	...	13	2	...	...	3	8	...	3	1	2	1	3	1	6	4
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	1	...	...	5	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
..	...	...	...	...	9	...	1	...	...	...	...	2	...	...	...	1	1	...	1	...	...
..	...	...	...	...	9	...	2	1	...	...	1	5	...	...	...	2	1	...	...	...	...
..	...	...	1	...	14	1	8	3	1	...	1	9	...	...	1	1	1	...	...	3	2
..	...	1	1	1	15	...	17	1	2	...	3	6	1	...	...	3	3	4	1	1	1
..	...	2	...	1	6	4	33	3	2	1	6	10	3	1	...	...	5	...	...	2	...
..	...	1	...	2	6	...	15	1	...	2	1	4	2	...	1	...	6	...	2	...	...
..	...	...	...	2	1	1	6	...	...	...	...	2	...	...	...	...	2	...	...	...	...
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
..	...	5	2	6	65	6	82	9	5	3	13	39	6	1	2	7	19	4	4	6	3
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3
1	...	1	1	1	15	...	1	...	...	...	1	9	...	2	...	1	...	...	...	1	5
..	...	2	...	1	9	2	6	4	...	1	2	12	1	1	...	1	3	...	...	1	1
..	...	1	1	...	10	3	8	6	1	...	5	11	...	1	...	1	1	2	1	5	1
1	1	2	...	5	13	1	27	4	...	...	6	12	2	4	...	...	7	5	2	3	1
..	...	2	...	3	14	5	29	3	1	1	5	14	2	2	1	...	11	1	1	4	1
..	...	1	1	6	12	...	28	1	...	...	2	7	...	1	1	2	6	...	1	2	...
..	...	1	...	4	2	...	22	...	2	...	1	2	2	...	...	1	1	...	...	1	...
..	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
3	1	10	3	20	79	11	122	18	4	2	22	68	7	11	2	6	29	8	5	19	12

TABLE 5,—SHOWING AGES AT DEATH AND OCCUPATIONS OF DECEDENTS IN

DECEMBER 31,

		Farmers.	Firemen.	Fishermen.	Florists, &c.	Foundrymen.	Glassblowers.	Glassworkers.	Grinders, &c.	Grocers.	Hatters.	Hotelkeepers.	Housekeepers and housewives.	Icemen.
Consumption.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	1	...	...	...	...	...	...	...	...	...	...	45	...
	20 to 30.	6	3	...	1	3	1	3	4	...	5	...	272	...
	30 to 40.	6	4	1	3	3	1	2	4	3	10	3	299	1
	40 to 50.	6	4	1	2	...	...	...	4	2	5	4	178	1
	50 to 60.	5	1	1	4	1	...	...	1	1	2	1	73	...
	60 to 70.	8	...	...	1	2	1	...	...	...	2	...	60	...
	70 to 80.	8	...	...	...	1	...	...	...	1	...	...	27	...
	80 to 90.	3	...	...	...	...	...	...	...	...	...	...	2	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals.		43	12	3	11	10	3	5	13	7	24	8	956	2
Cancer.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	...	...	...	2	...
	20 to 30.	...	...	...	...	...	...	...	...	...	...	...	17	...
	30 to 40.	1	...	...	...	1	...	1	...	1	...	...	78	...
	40 to 50.	2	2	...	2	...	...	1	...	1	1	...	200	...
	50 to 60.	15	2	2	3	...	...	...	...	1	5	2	234	...
	60 to 70.	14	4	...	4	2	...	...	...	1	...	2	206	...
	70 to 80.	13	...	1	3	1	1	...	...	...	...	2	120	...
	80 to 90.	5	...	...	...	...	...	...	...	...	...	...	30	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	1	...
Totals.		50	8	3	12	4	1	2	...	4	6	6	888	...
Suicide.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	1	...	...	3	...
	20 to 30.	2	...	...	...	...	...	...	...	1	...	...	11	...
	30 to 40.	1	...	...	...	...	2	1	...	...	1	...	10	...
	40 to 50.	4	...	...	...	...	...	...	...	...	...	...	14	...
	50 to 60.	8	...	...	1	...	...	...	1	1	...	...	13	...
	60 to 70.	7	...	...	...	...	...	...	...	...	...	1	6	...
	70 to 80.	3	...	...	...	...	...	...	...	...	...	...	1	...
	80 to 90.	1	...	...	...	...	...	...	...	...	...	...	...	...
	Over 90.	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals.		26	...	...	1	...	2	1	1	3	2	...	58	...
Diseases of the nervous system and of the organs of sense.	10 to 15.	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	1	...	...	...	...	...	...	...	...	...	...	3	...
	20 to 30.	2	...	...	...	...	...	1	...	...	...	...	28	...
	30 to 40.	5	3	...	3	...	...	...	...	...	...	...	65	...
	40 to 50.	2	2	2	2	...	...	1	1	2	2	1	141	...
	50 to 60.	21	1	1	1	...	1	1	1	3	...	5	217	...
	60 to 70.	56	2	1	7	4	...	1	...	2	5	1	283	1
	70 to 80.	41	...	1	4	...	1	...	...	2	1	2	260	...
	80 to 90.	40	...	1	...	...	...	...	...	...	...	1	98	1
	Over 90.	...	...	...	1	...	...	...	...	...	...	...	9	...
Totals.		168	8	6	18	4	2	4	2	9	8	10	1104	2
Diseases of the circulatory system.	10 to 15.	1	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20.	...	...	...	...	...	...	...	...	...	...	...	6	...
	20 to 30.	...	2	...	1	...	...	...	...	...	1	1	63	...
	30 to 40.	3	2	...	...	1	...	...	1	1	...	1	120	1
	40 to 50.	7	1	...	1	2	...	...	...	2	6	5	170	...
	50 to 60.	23	...	...	1	3	...	...	...	2	4	5	262	2
	60 to 70.	50	1	3	4	2	...	2	...	2	4	2	342	1
	70 to 80.	90	3	4	7	1	1	...	...	...	5	1	303	...
	80 to 90.	40	1	...	1	...	...	...	...	2	2	...	114	...
	Over 90.	8	...	...	...	...	...	...	...	...	...	...	19	...
Totals.		222	10	7	15	9	1	2	1	9	22	15	1399	4

NEW JERSEY FROM CERTAIN SELECTED DISEASES FOR THE YEAR ENDING 1912—Continued.

Janitors, &c.	Japanners.	Jewelers.	Laborers.	Laundresses.	Laundrymen.	Lawyers.	Leatherworkers.	Lettercarriers.	Linemen.	Linoleumworkers.	Locksmiths.	Machinists.	Managers, &c.	Manufacturers.	Masons.	Merchants.	Milkmen.	Millers.	Miners.	Musicians.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	40	1	...	...	1	...	...	...	...	6	1	1	...	1	...	...	...	1
1	...	1	33	1	...	1	3	...	...	...	...	7	3	...	4	1	...	1	...	1
1	...	1	57	1	...	1	...	...	...	...	...	5	7	...	3	4	1	1	...	...
3	...	...	36	1	...	1	4	1	...	...	...	5	3	...	2	8	...	...	...	1
4	...	...	29	...	...	...	1	2	...	...	...	3	1	1	...	4	...	...	...	1
...	...	...	11	...	...	2	...	...	...	...	...	2	2	...	1	5	1	1	...	...
1	1	...	6	...	...	...	1	...	...	...	...	1	1	...	1	3	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...
10	1	2	227	4	...	5	10	3	...	...	...	29	19	2	11	27	2	3	...	4

TABLE 5,—SHOWING AGES AT DEATH AND OCCUPATIONS OF DECEDENTS IN DECEMBER 31,

		Nurses.	Painters.	Paperhangers.	Photographers.	Physicians.	Plumbers.	Porters, &c.	Potters.	Printers.	Railroad employes.	Real estate and insurance.	Rubberworkers.	Sailors.	Salesmen.
All other diseases and causes of death.	10 to 15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 to 20	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	20 to 30	1	...	...	...	...	1	...	...	...	5	...	...	1	1
	30 to 40	2	2	...	1	2	4	...	2	1	6	...	2	...	6
	40 to 50	...	4	...	...	1	1	...	2	2	3	2	1	...	5
	50 to 60	2	5	1	...	2	1	1	...	1	3	1	...	1	5
	60 to 70	3	5	...	...	...	2	...	2	2	3	...	1	2	4
	70 to 80	...	3	...	...	1	...	...	...	...	1	3	...	2	...
	80 to 90	...	1	...	...	...	...	...	...	...	1	1	...	2	2
	Over 90	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals		8	20	1	1	6	9	1	6	6	22	7	4	8	23

NEW JERSEY FROM CERTAIN SELECTED DISEASES FOR THE YEAR ENDING 1912—Continued.

Shipbuilders.	Shoemakers.	Silkworkers.	Stonecutters.	Tailors.	Tanners.	Teachers.	Telegraphers.	Tileworkers.	Tinsmiths.	Trunkmakers.	Undertakers.	Upholsterers.	Waiters.	Watchmakers.	Weavers.	Wheelwrights.	Wireworkers.	All other occupations.	All other professions.	All other trades.
...	....	....	....	....	....	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	....	....	....	1	....	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
...	2	2	....	....	....	3	1	...	...	...	...	...	...	1	3	...	1	10	....	1
...	1	....	....	2	....	1	...	...	2	...	...	...	3	...	1	...	2	5	2	1
...	4	1	1	4	....	3	...	...	1	...	...	1	1	...	2	1	1	9	2	....
1	2	....	....	2	....	...	...	...	1	...	...	1	...	...	2	...	2	6	1	2
3	2	2	....	2	....	1	...	...	...	...	...	1	...	...	1	...	...	11	2	....
1	3	1	....	1	....	2	...	...	...	...	...	1	1	...	...	1	...	6	....	....
...	2	....	....	....	....	1	1	...	...	...	...	...	...	...	...	...	...	4	1	....
1	....	....	....	....	....	...	...	...	...	...	...	...	...	...	...	...	...	....	....	....
6	16	6	1	12	....	11	2	...	4	...	...	4	5	1	9	2	6	51	8	4

TABLE 6.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ASBURY PARK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1							1					
Whooping cough	8		1	1									
Diphtheria and croup	9			1									
Tuberculosis of the lungs	28					1	1		3		2	2	1
Cancer and other malignant tumors of the stomach, liver	40									1		1	1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												1
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												
Exophthalmic goitre	51												
Anaemia, chlorosis	54												
Simple meningitis	61		1	2						1			
Cerebral haemorrhage, apoplexy	64										1		2
Paralysis without specified cause	66												
Neuralgia and neuritis	73												
Acute endocarditis	78				1						1		
Organic diseases of the heart	79							1		1	1	1	1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												1
Embolism and thrombosis	82											1	
Acute bronchitis	89		1										
Bronchopneumonia	91												
Pneumonia	92		1					1	1				1
Pulmonary congestion. pulmonary apoplexy	94												
Asthma	96												
Other diseases of the stomach (cancer excepted)	103	2	1										
Diarrhoea and enteritis (Under 2 years)	104		6	1									
Other diseases of the intestines	110												
Cirrhosis of the liver	113											1	1
Simple peritonitis (nonpuerperal)	117								1				
Bright's disease	120												1
Caculi of the urinary passages	123												
Puerperal haemorrhage	135										1		
Other accidents of labor	136								1				
Acute abscess	144												1
Congenital debility, icterus and sclerema	151	10	1										
Other diseases peculiar to early infancy	152		1										
Lack of care	153	2											
Senility	154												
Burns (conflagration excepted)	167					1							
Absorption of deleterious gases (conflagration excepted)	168							1					1
Traumatism by fall	172			1									
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175				1					1			1
Effects of heat	179												
Homicide by firearms	182						1	1					
Cause of death not specified or ill defined	189		3										

Total deaths, 160. Death-rate, 12.90.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	1	...	...	...	...	...	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	1	...	...	...	...	8	4	7	10	...	...	...	...	...	...	...	1	...	...	1	...	8	3	1	...
...	...	2	...	...	...	...	2	3	1	3	...	...	...	1	...	1	...	...	...	...	...	...	4	...	1	...
...	...	...	1	...			...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	1	...		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	3	1	2	4	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...
2	...	4	5	...	1	...	5	10	3	13	...	...	...	1	...	...	...	...	1	...	...	...	7	3	5	...
...	...	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	2	3	...	1	...	4	4	1	7	...	...	...	...	...	...	...	1	...	...	...	...	4	2	2	...
2	1	1	2	1	...	...	7	5	3	10	...	...	1	...	...	...	...	...	1	...	...	...	6	3	3	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	2	...	1	...	...	2	2	...	3	...	...	...	...	1	...	...	...	...	...	...	...	3	...	1	...
...	...	...	...	1	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	2	...	...	2	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...
...	...	1	1	1	...	...	3	4	1	6	...	...	1	...	...	...	...	...	...	...	...	...	3	2	2	...
...	...	...	...	1	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
2	...	1	...	...	...	...	2	4	4	6	...	...	...	...	...	...	...	...	...	...	...	...	2	3	1	...
...	...	...	...	...	...	...	1	6	1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	3	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	3	...	...	...
...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
6	1	5	3	3	...	...	13	6	7	19	...	...	...	...	...	...	...	...	...	...	...	...	12	1	6	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	6	5	2	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...
...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	3	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	3	...	1	2	...	...	...	...	...	...	...	...	...	...	1	...	2	1	...	...
1	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	1	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	2	1	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...

TABLE 7.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ATLANTIC CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1				1			1	4	1			
Scarlet fever	7				1								
Whooping cough	8	1	2		1		2						
Diphtheria and croup	9		1	4	5	1		1					
Dystentery	14		1										
Erysipelas	18										1		
Purulent infection and septichaemia	20												
Tuberculosis of the lungs	28			1	1	2	3	4	6	2	7	10	5
Acute miliary tuberculosis	29		1				1						
Tuberculous meningitis	30		1		1								
Abdominal tuberculosis	31			1						1			
Tuberculosis of other organs	34						2						
Disseminated tuberculosis	35								2				
Rickets	36	1	1	1									
Syphilis	37	1	1										
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach liver.	40											2	2
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41									2			1
Cancer and other malignant tumors of the female genital organs	42										1	1	3
Cancer and other malignant tumors of the breast	43												1
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45										1		
Acute articular rheumatism	47							1				1	
Diabetes	50											1	2
Exophthalmic goitre	51											1	
Leuchaemia	53				1								
Anaemia, chlorosis	54								1				
Other general diseases	55		3								1		
Alcoholism (acute or chronic)	56									2	3	1	3
Simple meningitis	61		2	2	1		1	1					
Including: Cerebrospinal fever	61A			1									
Locomotor ataxia	62												
Other diseases of the spinal cord	63											1	2
Cerebral haemorrhage, apoplexy	64			1							2	2	4
Softening of the brain	65											1	
Paralysis without specified cause	66												
Other forms of mental alienation	68			1									
Epilepsy	69								1				
Convulsions of infants	71	1	1										
Other diseases of the eyes and their adnexa	75												
Pericarditis	77											1	
Acute endocarditis	78				1			1	2	1			5
Organic diseases of the heart	79				1		1	4			4	2	6
Angina pectoris	80											1	
Diseases of the arteries, atheroma aneurysm, etc.	81												
Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	83												
Haemorrhage; other diseases of the circulatory system	85												
Diseases of the larynx	87			2									
Acute bronchitis	89		1	2				1					
Chronic bronchitis	90												
Bronchopneumonia	91		11	2				1				1	1
Pneumonia	92	1	4	1	1			2	4	5	2	1	3

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
1		1					7	2	1	8	1												2	7		
								1		1														1		
								3		3														3		
							5	8	3	12			1										1	12		
			1					2	1	2														1	1	
								1		1														1		
	1						1			1														1		
3	3	4	2				30	23	20	46	1			2	1		1		1		1		29	18	6	
							1	1	2	2														2		
							1	1		2														2		
								2		2													1	1		
							1	1		1					1									2		
							1	1	1	2													1	1		
							1	2	3	3														3		
							2		2	2														2		
		1					1							1									1			
6		4	1				6	9		9				1		1	1		1			2	9	1	5	
		4	2				2	7		7	1	1														
3	2		1					11	1	10											1		4	3	4	
2	1	1	2					7		5				2									4	1	2	
1							1			1													1			
							1			1													1			
			1				2	1		2	1												1	1	1	
1	1	3					3	5	1	6	1										1		4		4	
								1		1														1		
							1	2		2													1	1		
		1					1	1	1	2													1	1		
			1				3	2		5														4	1	
3	4	3					14	5	5	11	3		1	1				1				2	7	5	4	3
							3	4	1	7														7		
								1		1														1		
1	1						2		1	2													1		1	
1	2						4	2		6													3	2	1	
4	5	13	10	4			25	20	6	32	1		2	5	1	2					2		26	6	12	1
								1		1													1			
			3	1			1	3	1	4														1	3	
								1		1														1		
							1			1														1		
							1	1	1	2														2		
		1						1			1												1			
			1				1	1		2													1	1		
	7	6	14	2			18	21	6	30	1		3	4							1		16	4	19	
4	3	21	5	2			23	29	10	38	2		4	2	1				1		3	1	24	11	17	
		6	1				6	2	2	6				1					1				5	1	2	
	1	3	3	3			7	3		7		2	1										7		3	
1							1			1													1			
		1						1						1									1			
							2			2														2		
		1	1	1	1		2	6	1	6			1						1				3	4	1	
1		1	1				1	2		2			1										1		2	
			2	1			10	8	6	17	1												1	14	3	
5	4	6	4	2			26	19	14	34			2	3	2	2					2		16	18	9	2

TABLE 7.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ATLANTIC CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Pleurisy	93	..	....	..	..	..	..	1	1	..	..	..	2
Pulmonary congestion, pulmonary apoplexy	94	..	....	1	..	1	..	..	..	1	..	1	..
Asthma	96	..	....	..	..	..	..	..	..	1	..	3	1
Other diseases of the mouth and annexa	99	..	....	1	..	..	..	..	..	..	..	..	..
Diseases of the pharynx	100	..	....	..	..	..	..	1	..	..	..	..	..
Ulcer of the stomach	102	..	....	..	..	..	..	..	..	..	1	..	..
Other diseases of the stomach (cancer excepted)	103	1	4	..	..	..	..	1	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	2	21	5	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	....	1	..	..	..	1	..	1	..	1	3
Appendicitis and typhlitis	106	..	....	..	..	..	..	..	..	..	..	..	1
Hernias, intestinal obstructions	109	1	1	..	..	..	..	1	..	..	..	3	..
Other diseases of the intestines	110	..	....	..	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the liver	115	..	....	..	..	..	..	..	1	..	..	..	..
Simple peritonitis (nonpuerperal)	117	..	....	1	..	..	1	..	..	1	..	..	..
Other diseases of the digestive system (cancer and tuberculosis excepted)	118	..	....	..	..	..	..	..	..	..	..	..	..
Acute nephritis	119	..	....	1	..	..	..	1	..	..	1	2	2
Bright's disease	120	..	....	..	..	1	..	1	..	3	2	3	5
Diseases of the bladder	124	..	....	..	..	..	..	..	..	..	..	..	1
Diseases of the prostate	126	..	....	..	..	..	..	..	..	..	..	..	..
Uterine tumor (noncancerous)	129	..	....	..	..	..	..	..	..	..	..	..	1
Other diseases of the uterus	130	..	....	..	..	..	..	..	1	1	..	..	..
Cysts and other tumors of the ovary	131	..	....	..	..	..	..	..	..	1	..	..	..
Salpingitis and other diseases of the female genital organs	132	..	....	..	..	..	..	..	..	..	..	..	1
Accidents of pregnancy	134	..	....	..	..	..	..	1	1	..	1	..	..
Other accidents of labor	136	..	....	..	..	..	1	..	..	..	..	..	..
Puerperal septichaemia	137	..	....	..	..	..	..	1	..	..	..	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	1	..	..	..	..	1	..
Following childbirth (not otherwise defined)	140	..	....	..	..	..	..	..	..	..	..	1	..
Gangrene	142	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the skin and annexa	145	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the bones (tuberculosis excepted)	146	..	....	1	1	..	..	..	..	..	1	..	..
Congenital debility, icterus and sclerema	151	24	2	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	2	....	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	1	..	..	..	..	..
Suicide by asphyxia	156	..	....	..	..	..	..	..	..	2	1	..	2
Suicide by drowning	158	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	2	..	1	..
Burns (conflagration excepted)	167	..	....	..	..	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	1	..	..	..	1	..	..	..	..	1
Accidental drowning	169	..	....	1	1	1	2	..	1	1	..	..	2
Traumatism by firearms	170	..	....	..	..	..	1	..	..	..	..	..	..
Traumatism by fall	172	..	....	..	..	..	..	1	1	1	..	1	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	1	2	2	2	3	2	3	2	1
Electricity (lightning excepted)	181	..	....	..	..	..	..	..	1	..	..	..	1
Homicide by firearms	182	..	....	..	..	..	..	1	1	..	1	..	..
Homicide by other means	184	..	....	2	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	14	2	..	1	..	..	..	..	..	..	..

Total deaths, 767. Death-rate, 15.47.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							4		1	1				1		1			1				1	2	1	
	2	1	2				8	1		7			1								1		5	3	1	
		1	1				2	5	4	7													5	1	1	
							1								1									1		
							1			1														1		
				2				3	1	3													1		2	
	1	3	1	1			7	5	5	10	1			1									3	6	3	
							14	14	8	28														28		
1	1	4	1				6	8	6	14													6	2	6	
1							2			2													2			
2		1					2	7	2	8	1												5	3	1	
		1						1		1													1			
1	3	2					5	1	1	4	1				1								5		1	
							1			1														1		
							2	1		3														3		
1								1		1														1		
	1	2					5	5	4	8				2									5	1	4	
10	15	12	16	4			36	36	9	51	2		5	5	3						6		41	12	19	
							1		1	1														1		
		1	1				2			2													2			
								1		1														1		
								2		1									1				2			
								1	1	1															1	
								1	1	1													1			
								3		3													3			
								1							1								1			
								1		1														1		
								2		1					1								2			
								1		1													1			
1							1			1													1			
			1				1														1				1	
	1		1				3	2		4					1								3	2		
							13	13	6	26														26		
							2		1	2														2		
			2	1	2		2	3	1	3	1										1		1		4	
1							1	1		1			1										2			
	1						5	1		6													5	1		
1								1		1															1	
							3						1						1			1	1			2
1		1					1	1	1	1			1												2	
1	1	1	1				4	3		5												2	2	5		
1							9	1	2	8				1								1	3	6		1
							1			1														1		
	1	2					5	2	1	6					1								5		2	
1	2						18	3	4	17					1						1	2	9	10		2
							1	1		2														2		
							3		2	2												1	1	2		
							1	1	2	2														2		
							9	8	6	17														17		

TABLE 8.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BAYONNE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1				2				1		1	1	
Measles	6		3	10									
Scarlet fever	7		1	5	2								
Whooping cough	8	1	11	10									
Diphtheria and croup	9		1	8	3	1							
Dysentery	14	1	1										
Erysipelas	18	1	1										
Tetanus	24			1						1			
Tuberculosis of the lungs	28		1	3	1		4	9	13	14	10	6	8
Tuberculous meningitis	30		3	3				1					
Abdominal tuberculosis	31					1				1	1		
Pott's disease	32						1		1				
Syphilis	37	1	1								1		
Cancer and other malignant tumors of the buccal cavity	39								1				
Cancer and other malignant tumors of the stomach, liver	40									1	2	1	1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41									1		1	
Cancer and other malignant tumors of the female genital organs	42										1	1	
Cancer and other malignant tumors of the breast	43												1
Cancer and other malignant tumors of the skin	44									1			
Cancer and other malignant tumors of other organs or of organs not specified	45										2		
Other tumors (tumors of the female genital organs excepted)	46											1	
Acute articular rheumatism	47				1								
Diabetes	50						1		1	1			
Other general diseases	55			1									
Alcoholism (acute or chronic)	56									1	1	1	1
Simple meningitis	61		3	2	2	2	1	1	1		1		
Locomotor ataxia	62												
Other diseases of the spinal cord	63			1									
Cerebral haemorrhage, apoplexy	64	1	1		1				1		1	2	3
Paralysis without specified cause	66										1		1
Other forms of mental alienation	68											1	
Convulsions of infants	71	9	8	2	1								
Chorea	72							1					
Other diseases of the nervous system	74				1							1	1
Diseases of the ears	76			1									
Acute endocarditis	78			1	1	1			1		4	1	3
Organic diseases of the heart	79									1	2	1	2
Angina pectoris	80												
Diseases of the arteries, atheroma, aneurysm, etc.	81												
Acute bronchitis	89	1	6	3								1	
Chronic bronchitis	90												
Bronchopneumonia	91	3	18	9					1		1		
Pneumonia	92	2	15	14	1	1	1		5	1	4	6	7
Pleurisy	93			3						1	1		
Pulmonary congestion, pulmonary apoplexy	94									1			
Ulcer of the stomach	102								1				
Other diseases of the stomach (cancer excepted)	103	4	12										
Diarrhoea and enteritis (Under 2 years)	104	8	61	19									
Diarrhoea and enteritis (2 years and over)	105			7	3			1			3	2	
Appendicitis and typhlitis	108					1				2			
Hernias, intestinal obstructions	109					1		1					1
Other diseases of the intestines	110											1	
Cirrhosis of the liver	113			1				1			1	3	1

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
	1						5	1		5				1									3	3		
							7	6		13														13		
							5	3		8														8		
							12	10		22														22		
							5	8		13														13		
							1	1		2														2		
							2			2														2		
							2			1				1									1	1		
2	2	1					42	32	4	46	1		2	8	2		6		4		3	2	45	20	9	
							4	3		6									1					7		
							3			1							1				1		1	2		
							1	1			1		1										1	1		
							1	2		2							1						1	2		
	2						2	1		1				2									2		1	
2	2	2					5	6		4				3			1	1	2				9		2	
1		2	3				4	4		2			1	3		1		1					6		2	
								2						1					1				2			
1								2		2													1	1		
								1		1														1		
1		1					2	2		2				1			1						3		1	
								1		1															1	
								1		1														1		
	2	2					4	3		4	1			2									1	4	2	
1							2			1			1										1	1		
							4			1							2		1				2	2		
							8	5		11				2									2	11		
2							2			1							1						2			
							1			1														1		
5	3	9	9	4	1		17	24	1	21	1	1	5	9			1	1	1		1		18	4	19	
		1					1	2		2				1									2	1		
1							2						1				1						2			
							11	9		20														20		
							1			1														1		
								3		2				1									1	2		
								1		1														1		
2	1	6	5	3			16	13	2	16	2		3	5	1		1		1				12	7	10	
7		2	2				8	9		8	1		2	3			1		2				13	2	2	
	1						1			1													1			
1		1	1	2			4	1		3			1						1				4		1	
	1		1	1	1		8	7	1	11			1	3									1	11	3	
		3	1				1	3		1			1	1					1				1		3	
					1		20	13		31			1				1						2	30	1	
1	5	7	8	4			44	33	1	48	1		4	10	2	2	4		6				23	41	13	
							3	2		5														5		
1		1	1				2	2		1	1			2									4			
			1				2			2													1	1		
		1					7	10	1	17													1	16		
							47	41	3	88														88		
2	3	3	3	1			15	13		16			1	7		1		1	2				7	11	10	
							2	1	1	2							1						2	1		
							2	1		1							1		1				1	2		
								1	1	1															1	
2	1	2					10	2		6	1		1	1					3				7	2	3	

TABLE 8.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BAYONNE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Other diseases of the liver	115												
Simple peritonitis (nonpuerperal)	117											1	
Acute nephritis	119			1				1	1				
Bright's disease	120				1	1	3	2	2	3	3	3	2
Other diseases of the kidneys and annexa	122												
Diseases of the prostate	126												
Salpingitis and other diseases of the female genital organs	132										1		
Accidents of pregnancy	134										2		
Puerperal septichaemia	137					1	1		1				
Puerperal albuminuria and convulsions	138									1	2		
Acute abscess	144		1										
Other diseases of the skin and annexa	145			1							1		1
Diseases of the bones (tuberculosis excepted)	146						1						
Diseases of the bones (tuberculosis and rheumatism excepted)	147										1		
Congenital malformations (stillbirths not included)	150	1	1	1									
Congenital debility, icterus and sclerema	151	50	2										
Other diseases peculiar to early infancy	152		1										
Suicide by hanging or strangulation	157												
Suicide by firearms	159							1					
Burns (conflagration excepted)	167		1	2	1		2	1					
Absorption of deleterious gases (conflagration excepted)	168									1		1	2
Accidental drowning	169				2	1	2		1	2	2	5	
Traumatism by fall	172					1					1		
Traumatism by machines	174												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175			2	1	1	2	4	1	3	4	2	1
Effects of heat	179										1		
Homicide by firearms	182							1					
Other external violence	186			2									
Causes of death not specified or ill-defined	189	1	5	3									

Total deaths, 850. Death-rate, 13.97.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		1					1			1													1			
								1								1							1			
	2						1	4		3				1			1						1	4		
10	9	15	6	1			35	26	3	32	1		5	9	1		4	1	7		1		36	11	14	
		1						1			1												1			
			1				1						1												1	
								1		1													1			
								2						1			1						1	1		
								3	1	2									1				1	2		
								3		1				1			1						2	1		
							1			1														1		
	1						1	2		1				1					1				2	1		
								1		1														1		
							1														1			1		
							1	2		3														3		
							33	19	1	52														52		
								1		1														1		
1	1						2						2										1			1
							1									1								1		
1							2	6		6				1					1				1	7		
1	1						6			2			2	2									2	4		
1		2		1			19			7			3		1		1	3				4	5	9	1	4
1							2	1		1	1						1						1	2		
1							1												1					1		
	1						20	2		9			1	1	1		5		4			1	13	8		1
								1						1											1	
							1			1														1		
								2		2														2		
							4	5	1	9														9		

TABLE 9.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BLOOMFIELD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6			1									
Scarlet fever	7			1									
Whooping cough	8		1	1									
Diphtheria and croup	9			1	1								
Erysipelas	18		1										
Other epidemic diseases	19				1								
Tuberculosis of the lungs	28					1	1	4	5	4	4		
Tuberculous meningitis	30			2									
Disseminated tuberculosis	35								1				
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												1
Anaemia, chlorosis	54												
Simple meningitis	61			1									
Cerebral haemorrhage, apoplexy	64											1	
Paralysis without specified cause	66											1	
Acute endocarditis	78												
Organic diseases of the heart	79												1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Diseases of the larynx	87		1										
Acute bronchitis	89												
Bronchopneumonia	91	1	1	3									
Pneumonia	92		2	1				1		1			
Pleurisy	93												
Other diseases of the stomach (cancer excepted)	103		2										
Diarrhoea and enteritis (Under 2 years)	104		4	1									
Diarrhoea and enteritis (2 years and over)	105			1								1	
Acute nephritis	119												
Bright's disease	120												
Diseases of the bladder	124												
Congenital debility, icterus and sclerema	151	13											
Other diseases peculiar to early infancy	152	1	2										
Senility	154												
Suicide by poison	155						1						
Suicide by asphyxia	156											1	1
Suicide by crushing	162								1				
Other acute poisonings	165			1									
Traumatism by fall	172												
Effects of heat	179												
Cause of death not specified or ill-defined	189	1											

Total deaths, 140. Death-rate 8.52.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
							1			1														1		
							2			1									1					2		
							2			2														2		
							1			1														1		
								1		1														1		
2		1	1				16	7	1	16	2			1		1				1	2		12	10	1	
							2			2														2		
								1		1													1			
	1		1	1			2	1		3													1		2	
1								1		1													1			
	1		1					3		2	1												2		1	
			1					1		1													1			
		1						2		2													1	1		
	1	1	2	1			4	2		5	1												5	1		
								1							1								1			
1		1						2		1									1				1	1		
1	1	4	3	3			11	2		6			3	1							2	1	10		3	
		1						1		1														1		
		2	1				1	2		1			1	1									2		1	
							1			1														1		
			1	2				3		3													1		2	
			1				3	3		6													1	5		
			2	1			4	4	1	6	2												2	4	2	
		1					1			1															1	
			2				1	3		3			1											2	2	
							2	5		7														7		
			1	2			1	4		3			1			1							1	1	3	
		1						1					1										1			
	1	3	1	2			3	4		4	1			1								1	4		3	
			1				1			1													1			
							7	6	2	12			1											13		
							3		2	3														3		
				1				1		1															1	
								1			1													1		
		1					2	1		2									1				3			
							1												1					1		
								1		1														1		
				1				1		1													1			
				1			1									1							1			
								1		1														1		

TABLE 10.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BORDENTOWN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diphtheria and croup	9	..	....	..	1	..	..	..	..	..	..	..	..
Influenza	10	..	....	..	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	....	..	..	1	..	3	1	1	4	2	1
Tuberculous meningitis	30	..	....	1	..	..	..	..	..	..	..	..	..
Syphilis	37	..	....	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the buccal cavity	39	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the stomach, liver	40	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the skin	44	..	....	..	..	..	..	..	..	..	..	..	..
Diabetes	50	..	....	..	..	..	..	..	..	..	..	..	..
Simple meningitis	61	..	1	..	..	..	..	..	..	..	1	..	..
Including : Cerebrospinal fever	61A	..	....	1	..	..	..	..	..	..	..	..	..
Locomotor ataxia	62	..	....	..	..	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	....	..	..	..	..	..	..	..	..	..	..
Paralysis without specified cause	66	..	....	..	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	....	..	..	..	..	..	..	..	..	..	..
Organic diseases of the heart	79	1	....	1	..	..	..	..	..	1	..	..	..
Bronchopneumonia	91	..	1	..	..	..	..	..	..	..	..	..	..
Pneumonia	92	..	1	1	..	..	..	..	..	..	1	1	..
Pleurisy	93	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted)	103	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	..	2	1	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	1	..	..	..
Other diseases of the liver	115	..	....	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	..	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	6	....	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Accidental drowning	169	..	....	..	..	..	..	..	1	..	..	..	..
Cause of death not specified or ill-defined	189	1	1	..	..	..	..	..	..	..	..	..	..

Total deaths, 73. Death-rate 16.89.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	8	6	...	14	...	...	...	...	...	...	...	...	...	...	...	...	6	7	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...
...	1	2	1	...	...	...	1	3	1	3	...	...	...	1	...	...	...	...	...	...	...	...	1	...	3	...
...	...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	1	1	5	3	...	...	6	4	...	7	...	...	...	3	...	...	...	...	...	...	...	...	2	...	8	...
...	...	...	...	3	...	...	2	1	...	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	3	...
...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	3	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	1	...	...	3	2	3	5	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
...	...	...	...	...	...	...	3	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	1	...	...	...	...	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	2	4	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...
...	...	...	...	2	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	2	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...

TABLE 11.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BRIDGETON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1	..	..	..	..	..	..	..	..	..	1	1	..
Diphtheria and croup	9	..	..	..	1	..	..	..	..	..	1	..	..
Purulent infection and septichaemia	20	..	..	..	..	..	..	..	..	..	..	..	..
Tetanus	24	..	..	..	..	..	1	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	..	..	..	..	1	2	2	1	1	1	1
Acute miliary tuberculosis	29	..	1	..	..	..	..	..	..	..	..	..	..
Tuberculous meningitis	30	..	1	..	..	..	..	..	..	..	..	..	..
Abdominal tuberculosis	31	..	..	..	..	..	..	..	..	1	..	..	..
Tuberculosis of other organs	34	..	..	..	..	..	..	..	..	1	..	..	..
Cancer and other malignant tumors of the stomach, liver	40	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the female genital organs	42	..	..	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the breast	43	..	..	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of other organs or of organs not specified	45	..	..	1	..	..	..	..	..	..	..	..	..
Diabetes	50	..	..	..	..	..	..	..	1	..	..	..	..
Anaemia, chlorosis	54	..	..	..	..	..	..	..	..	..	1	..	..
Other general diseases	55	1	..	..	..	..	..	..	..	..	..	..	..
Simple meningitis	61	..	..	1	1	..	..	..	..	..	1	..	1
Locomotor ataxia	62	..	..	..	..	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	..	..	..	..	..	..	..	..	..	..	..
Softening of the brain	65	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis without specified cause	66	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	69	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions of infants	71	1	1	..	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	..	..	..	..	..	..	..	..	..	..	..
Organic diseases of the heart	79	2	..	..	..	..	..	1	..	..	1	1	1
Diseases of the arteries, atheroma aneurysm, etc.	81	..	..	..	..	..	..	..	..	..	..	..	..
Embolism and thrombosis	82	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the larynx	87	..	1	..	..	..	..	..	..	..	..	..	..
Chronic bronchitis	90	..	..	..	..	..	..	..	..	..	..	..	..
Bronchopneumonia	91	..	1	..	..	1	..	..	..	..	1	..	..
Pneumonia	92	..	1	..	..	..	..	..	..	..	..	..	..
Pleurisy	93	..	..	..	..	..	1	..	..	..	..	..	..
Pulmonary congestion, pulmonary apoplexy	94	1	..	..	..	..	..	..	..	..	..	..	..
Asthma	96	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary emphysema	97	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of the stomach	102	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted)	103	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	3	10	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	..	1	..	..	..	..	..	..	..	..	..
Appendicitis and typhlitis	106	..	..	..	1	..	..	..	..	..	..	..	1
Other diseases of the intestines	110	..	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	..	..	..	..	..	..	..	..	..	..	1
Other diseases of the liver	115	..	..	..	..	..	..	..	..	1	..	..	..
Acute nephritis	119	..	..	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	..	..	..	..	..	1	..	..	..	1	2	1
Uterine tumor (noncancerous)	129	..	..	..	..	..	..	..	..	..	1	..	..
Puerperal haemorrhage	135	..	..	..	..	..	..	1	..	..	..	..	..
Other accidents of labor	136	..	..	..	..	..	..	..	1	..	..	..	..
Puerperal albuminuria and convulsions	138	..	..	..	..	..	..	..	1	1	..	..	..

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1	1		2													2			
								2	1	2													1	1		
		1					1			1													1			
								1							1									1		
			2				6	5	1	11													6	4	1	
							1			1														1		
								1		1														1		
							1			1													1			
								1		1													1			
1	2	3		1			3	4		7													5	1	1	
		2						2		2													1		1	
			1					2		2															2	
								1		1															1	
			1					2		2													1	1		
							1			1														1		
								1		1													1			
							1			1														1		
							2	2		4													2	2		
			1				1			1													1			
	1	4	3	3			5	6		7			2	2									4		7	
				1				1		1														1		
	1		8				1	3	1	4													2		2	
		1					1								1								1			
							2			2														2		
	1	1	1					3		3													1	1	1	
	2	2	3	2			10	5		15													10	2	3	
			2				1	1			1		1										2			
	1							1		1													1			
							1			1														1		
			1				1			1															1	
		1		1			4	1	2	5													2	2	1	
		2	2	2			3	4		6												1	3	1	3	
1		2					1	3	1	4													2	1	1	
			1	2	1		2	3		4				1										1	4	
1							1			1															1	
				1			1			1															1	
		2					2		1	1													1		1	
							1			1														1		
							10	3		13														13		
1		1	1	1			2	3		3		1	1										2	1	2	
		1					3			3													1	2		
				1			1						1												1	
1		1	1				4			3												1	2	1	1	
			1				1	1		2													2			
			1					1		1															1	
	1	6	6	2			9	11		19				1									9	4	7	
								1		1															1	
								1		1													1			
								1		1													1			
								2		2													2			

TABLE 11.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BRIDGETON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Gangrene	142												
Congenital debility, icterus and sclerema	151	2	2										
Other diseases peculiar to early infancy	152		1										
Senility	154												
Suicide by drowning	158								1				
Suicide by firearms	159							2	1				1
Other acute poisonings	165			1									
Burns (conflagration excepted)	167						1						1
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175												1
Homicide by firearms	182							1					
Cause of death not specified or ill-defined	189		5	1									

Total deaths, 189. Death-rate, 13.09.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	3	1	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	4	...	...	3	...	...	...	...	1	...	...	...	...	...	...	...	1	2	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	3	3	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...

TABLE 12.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN BURLINGTON CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Scarlet fever	7			2	1								
Whooping cough	8		1										
Diphtheria and croup	9			1				1					
Including Croup	9A			1									
Tuberculosis of the lungs	28			1				2	1		3	2	1
Tuberculous meningitis	30		1										
Abdominal tuberculosis	31		1										
Cancer and other malignant tumors of the stomach, liver	40											1	
Cancer and other malignant tumors of the female genital organs	42											1	1
Cancer and other malignant tumors of the breast	43												1
Cancer and other malignant tumors of other organs or of organs not specified	45												
Acute articular rheumatism	47												
Diabetes	50												
Simple meningitis	61			1									
Cerebral haemorrhage, apoplexy	64										1		1
Chorea	72							1					
Acute endocarditis	78							1				1	
Organic diseases of the heart	79	1									1	1	
Angina pectoris	80										1		
Diseases of the arteries, atheroma aneurysm, etc.	81												
Diseases of the larynx	87			1									
Bronchopneumonia	91		1	1									
Pneumonia	92	2	4	3	1				1		1		
Pulmonary congestion, pulmonary apoplexy	94												
Asthma	96												
Diarrhoea and enteritis (Under 2 years)	104	2	17	3									
Diarrhoea and enteritis (2 years and over)	105			1									
Simple peritonitis (nonpuerperal)	117				1								
Acute nephritis	119												
Bright's disease	120										1	2	1
Cysts and other tumors of the ovary	131												
Puerperal septichaemia	137										1		
Congenital malformations (stillbirths not included)	150	1											
Congenital debility, icterus and sclerema	151	3											
Senility	154												
Suicide by poison	155								1				
Conflagration	166												
Accidental drowning	169					1			1				
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175								1				

Total deaths, 150. Death-rate, 17.74.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	...	...	...	...	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	1	2	1	...	...	...	5	10	3	12	1	...	...	1	...	...	...	...	1	...	...	...	12	3	...	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	2	...	...	...	...	1	3	1	4	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	1	...	...	...	...	...	2	1	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
		1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	3	3	5	3	...	...	10	6	...	13	1	...	...	2	...	...	...	...	...	...	...	...	9	2	5	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	2	...	1	...	...	2	3	...	5	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	...
1	2	2	2	3	...	...	6	7	1	10	...	...	...	2	...	...	...	...	1	...	...	...	8	1	4	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	2	1	...	...	2	1	...	2	...	...	1	...	...	...	...	...	...	...	...	...	1	...	2	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	1	...	1	...	2	3	...	5	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	...
2	...	1	...	2	...	...	11	6	3	15	...	...	...	...	...	...	...	...	2	...	...	...	5	11	1	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	11	11	2	22	...	...	...	...	...	...	...	...	...	...	...	...	...	22	...	...
...	...	...	1	...	...	...	...	2	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
1	...	3	...	1	...	...	3	6	...	7	...	...	...	2	...	...	...	...	...	...	...	...	5	1	3	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	2	2	...	1	3	...	2	1	...	1	...	...	...	...	...	...	...	...	...	1	...	3	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...

TABLE 13.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN CAMDEN CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1	..	..	..	..	1	1	3	4	2	1	..	2
Malaria	4	..	..	2	1	..	..	..	..	..	..	..	..
Scarlet fever	7	..	..	..	3	..	1	..	..	..	..	..	..
Whooping cough	8	..	2	1	..	..	..	..	..	..	1	..	..
Diphtheria and croup	9	..	..	22	13	2	1	1	..	..	..	..	..
Including: Croup	9A	..	1	7	2	..	..	..	..	..	..	..	..
Influenza	10	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	14	..	1	..	..	..	..	..	..	..	..	..	..
Erysipelas	18	..	2	..	..	..	..	..	..	..	..	..	..
Other epidemic diseases	19	..	..	1	..	..	..	..	..	..	..	..	..
Purulent infection and septichaemia	20	..	1	..	1	..	..	..	..	..	..	..	..
Tetanus	24	..	..	..	1	2	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	1	2	2	..	..	12	15	19	13	23	12	6
Acute miliary tuberculosis	29	..	..	..	..	..	1	1	2	..	..	1	..
Tuberculous meningitis	30	..	1	2	3	..	1	..	..	..	..	..	..
Abdominal tuberculosis	31	..	..	..	..	..	..	1	..	2	..	1	..
Tuberculosis of other organs	34	..	1	..	..	..	2	..	..	..	..	..	..
Syphilis	37	1	4	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the buccal cavity	39	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors af the stomach, liver	40	..	..	..	..	..	..	1	..	..	1	1	6
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41	..	..	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the female genital organs	42	..	..	..	..	..	..	..	1	..	1	2	1
Cancer and other malignant tumors of the breast	43	..	..	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the skin	44	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of other organs or of organs not specified	45	..	..	..	..	..	..	..	..	..	2	1	1
Other tumors (tumors of the female genital organs excepted)	46	..	..	..	..	..	..	..	..	..	1	..	..
Acute articular rheumatism	47	..	..	..	..	1	..	..	..	..	..	1	..
Chronic rheumatism and gout	48	..	..	..	..	..	..	..	..	..	..	..	..
Diabetes	50	..	..	..	..	1	..	2	..	..	..	1	2
Exophthalmic goitre	51	..	..	..	..	..	..	..	1	..	..	..	..
Anaemia, chlorosis	54	..	..	2	..	..	..	..	..	..	..	..	..
Other general diseases	55	1	..	1	..	..	..	..	..	..	..	..	..
Alcoholism (acute or chronic)	56	..	..	..	..	..	..	..	..	1	..	1	1
Encephalitis	60	..	..	2	..	..	1	..	..	..	..	..	..
Simple meningitis	61	2	6	3	2	..	1	..	..	..	..	..	..
Other diseases of the spinal cord	63	..	..	..	..	..	1	1	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	2	1	..	..	..	..	..	1	2	2	4	4
Softening of the brain	65	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis without specified cause	66	..	..	..	..	..	..	..	..	..	1	..	1
Other forms of mental alienation	68	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions of infants	71	3	4	1	..	..	..	..	..	..	..	..	..
Chorea	72	..	..	..	..	..	1	..	..	..	..	..	..
Neuralgia and neuritis	73	..	..	..	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	1	1	..	..	..	3	..	4	4	3	3
Organic diseases of the heart	79	4	4	1	5	3	1	3	3	4	3	4	3
Angina pectoris	80	..	..	..	..	..	..	1	..	..	..	..	..
Diseases of the arteries, atheroma aneurysm, etc	81	..	..	..	..	..	..	..	..	..	..	..	1
Embolism and thrombosis	82	..	..	..	..	..	..	..	..	..	..	..	1
Diseases of the lymphatic system (lymphangitis, etc)	84	1	..	..	..	..	..	..	..	..	..	..	..
Acute bronchitis	89	1	5	1	..	..	..	..	..	..	..	..	..

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							8	6		10	1			1	1				1				8	6		
							1	2		3														3		
							1	3		4														4		
							2	2		4													1	3		
							22	17		39													1	38		
							3	7		10														10		
			1	1			1	1		1	1												1		1	
		1		1			4			4													2	1	1	
		1					3			3														3		
								1	1	1														1		
							1	1		2														2		
							1	2	1	3														3		
6	14	10	2				74	63	17	113	1		5	4	3	1	2	3	3			2	75	45	17	
							3	2	1	2			1	1							1		2	3		
							3	4	2	7														7		
		1					1	4	1	4				1									4	1		
							1	2		2					1									3		
							3	3	2	6														5	1	
1		2	1				3	1		3				1									3		1	
6	2	8	5	4			17	17	2	22			7	4								1	26	1	7	
2		1	4				4	4	1	6				2									2	1	5	
5		4	2					16	2	14	1			1									11	1	4	
		2	3				1	5		2			2	1		1							2		4	
1							1						1										1			
1	1	1	3				6	4		10													7	1	2	
		1	1					3		3													2		1	
			1				1	2		3													1	1	1	
	1		1		1			3		3													1		2	
2		3	1				6	6		7	1		3									1	7	3	2	
	1							2		2													1		1	
	1	1					2	2		3						1								3	1	
								2		2														2		
1							4			3	1												3	1		
		1		1			2	3	1	5													2	2	1	
							5	9		13											1			14		
		1		1			2	2		3			1										1	2	1	
8	13	27	20	8	2		44	50	12	66	5		4	12	3	1					2	1	50	9	34	1
		2	2		1		2	3		3				1		1								1	4	
1		6	4	3			3	12		13			1	1									4	1	10	
		1						2		2													1		1	
							6	2	1	8														8		
	1							2		2													1	1		
			1					1			1														1	
4	1	11	12	4			31	20	7	40	1		3	5	2								28	8	15	
9	7	17	23	3	1		51	47	9	76	5	1	9	4	1				1			1	40	26	31	1
		2	3				5	1	1	6													3		3	
	1	2	8	3	1		6	10		10	1	1	1	2			1						7	2	7	
							1			1													1			
							1			1														1		
			2	2			4	7	3	11																

TABLE 13.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN CAMDEN CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Chronic bronchitis	90	..	..	..	..	..	..	1	..	..	..	..	1
Bronchopneumonia	91	4	8	4	..	..	..	..	1	1	1	..	1
Pneumonia	92	6	37	27	10	1	1	3	5	3	7	6	2
Pleurisy	93	..	1	1	..	..	..	..	..	1	..	1	1
Pulmonary congestion, pulmonary apoplexy	94	..	2	1	..	..	..	..	..	1	..	1	..
Asthma	96	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the respiratory system (tuberculosis excepted)	98	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the mouth and annexa	99	..	..	..	..	..	..	..	..	1	..	..	..
Ulcer of the stomach	102	..	..	..	..	..	..	1	1	..	..	..	1
Other diseases of the stomach (cancer excepted)	103	2	5	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	2	79	6	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	..	4	1	..	..	..	..	1	..	1	..
Appendicitis and typhlitis	108	..	1	..	2	1	1	3	4	..	..	3	..
Hernias, intestinal obstructions	109	..	..	..	1	1	..	1	..	..	..	1	1
Other diseases of the intestines	110	..	1	1	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	..	..	..	..	1	..	..	2	3	2	2
Other diseases of the liver	115	2	..	..	..	..	..	..	..	..	1	..	2
Diseases of the spleen	116	..	..	1	..	..	..	..	..	..	..	..	..
Simple peritonitis (nonpuerperal)	117	..	..	..	..	..	..	..	..	..	..	..	..
Acute nephritis	119	1	..	2	..	..	1	..	1	1	..	1	..
Bright's disease	120	1	2	2	..	2	1	2	2	2	6	3	6
Other diseases of the kidneys and annexa	122	..	..	..	..	..	..	..	..	..	1	..	..
Diseases of the bladder	124	..	..	..	..	..	..	..	1	..	1	1	1
Diseases of the prostate	126	..	..	..	..	..	..	..	..	..	..	1	..
Uterine tumor (noncancerous)	129	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the uterus	130	..	..	..	..	..	..	..	..	..	..	..	..
Salpingitis and other diseases of the female genital organs	132	..	..	..	..	..	..	..	..	..	..	..	..
Nonpuerperal diseases of the breast (cancer excepted)	133	..	1	..	..	..	..	..	..	..	..	..	..
Accidents of pregnancy	134	..	..	..	..	..	..	..	1	2	2	..	..
Puerperal haemorrhage	135	..	..	..	..	..	..	3	..	4	..	..	..
Other accidents of labor	136	..	..	..	..	..	..	1	..	2	1	..	..
Puerperal septichaemia	137	..	..	..	..	..	..	..	..	..	..	1	..
Puerperal albuminuria and convulsions	138	..	..	..	..	..	..	1	5	..	1	..	..
Gangrene	142	..	..	..	..	..	..	1	..	..	..	..	..
Other diseases of the skin and annexa	145	..	..	..	..	..	..	..	..	1	..	..	1
Diseases of the bones (tuberculosis excepted)	146	..	..	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	1	2	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	90	7	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	4	1	..	..	..	..	..	..	..	..	..	..
Lack of care	153	..	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by asphyxia	156	..	..	..	..	..	..	..	..	..	1	..	..
Suicide by hanging or strangulation	157	..	..	..	..	..	..	..	1	..	..	..	..
Suicide by drowning	158	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by firearms	159	..	..	..	..	..	..	..	..	..	..	..	..
Other acute poisonings	165	..	..	1	..	..	..	..	1	..	..	..	..
Conflagration	166	..	1	..	..	..	..	..	..	..	..	..	..
Burns (conflagration excepted)	167	..	..	8	3	..	..	1	1	2	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	..	..	..	..	..	..	..	..	..	..	..
Accidental drowning	169	..	..	..	2	..	1	1	1	..	1	1	1

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	..	..	1	3	...	...	4	2	......	6	..	..	..	..	..	..	..	..	..	..	..	..	3	...	3	...
2	..	8	..	3	...	...	16	12	4	23	1	..	1	1	..	..	..	..	1	..	1	..	6	18	4	...
6	3	9	10	2	...	...	71	67	20	116	1	..	6	9	2	..	1	..	1	..	1	..	31	91	16	...
2	2	1	..	1	...	...	4	7	......	6	1	..	..	3	1	..	..	..	..	..	..	..	5	2	4	...
..	1	..	4	1	...	...	3	8	1	9	..	..	1	..	..	..	..	..	1	..	..	..	4	3	4	...
..	..	1	1	..	...	...	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1	...
1	..	..	..	..	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
..	1	..	..	..	...	...	1	1	......	2	..	..	..	..	..	..	..	..	..	..	..	..	2	...	...	...
..	..	..	..	..	...	...	2	1	......	3	..	..	..	..	..	..	..	..	..	..	..	..	1	2	...	...
..	..	..	..	..	...	...	3	4	1	7	..	..	..	..	..	..	..	..	..	..	..	..	...	7	...	...
..	..	..	..	..	...	...	51	36	10	87	..	..	..	..	..	..	..	..	..	..	..	..	...	87	...	...
1	3	1	4	2	...	...	8	10	2	15	..	..	1	2	..	..	..	..	..	..	..	..	5	10	3	...
..	..	1	..	..	...	...	5	11	......	13	..	..	..	2	1	..	..	..	..	..	..	..	8	8	...	...
2	3	3	..	1	...	...	8	6	1	10	..	..	4	..	..	..	..	..	..	..	..	..	8	3	3	...
1	..	1	..	..	...	...	2	2	......	4	..	..	..	..	..	..	..	..	..	..	..	..	...	2	2	...
4	5	2	5	..	...	...	16	10	3	14	..	..	6	3	2	..	..	1	..	..	..	..	15	6	5	...
..	..	..	1	1	...	...	3	4	......	7	..	..	..	..	..	..	..	..	..	..	..	..	2	3	2	...
..	..	..	..	..	...	...	1	...	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	1	..	1	..	...	...	1	1	......	2	..	..	..	..	..	..	..	..	..	..	..	..	...	...	2	...
..	..	..	2	..	1	...	9	1	......	10	..	..	..	..	..	..	..	..	..	..	..	..	2	6	2	...
9	13	45	19	8	1	...	62	62	15	101	4	1	5	10	..	..	..	..	1	..	..	2	53	23	48	...
..	..	..	..	..	...	...	1	...	......	......	1	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
1	..	..	1	..	2	...	5	3	1	8	..	..	..	..	..	..	..	..	..	..	..	..	5	2	1	...
..	..	..	..	..	...	...	1	...	......	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	1	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	1	..	..	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
1	..	..	..	..	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	...	5	2	3	..	..	..	..	..	..	..	..	..	..	..	2	5	...	...	...
..	..	..	..	..	...	...	...	7	1	4	..	..	..	..	..	..	..	..	2	..	..	1	5	2	...	...
..	..	..	..	..	...	...	...	4	1	3	..	..	..	..	..	..	..	..	1	..	..	..	3	1	...	...
..	..	..	..	..	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	...	7	......	5	..	..	..	1	1	..	..	..	..	..	..	..	7	...	...	...
1	..	1	..	..	...	...	3	...	......	1	..	..	1	1	..	..	..	..	..	..	..	..	1	1	1	...
1	..	1	1	..	...	...	3	2	......	3	..	..	1	..	..	1	..	..	..	..	..	..	4	1	...	...
..	..	..	..	1	...	...	1	...	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
..	..	..	..	..	...	...	1	2	......	3	..	..	..	..	..	..	..	..	..	..	..	..	...	3	...	...
..	..	..	..	..	...	...	66	31	7	97	..	..	..	..	..	..	..	..	..	..	..	..	...	97	...	...
..	..	..	..	..	...	...	3	2	1	5	..	..	..	..	..	..	..	..	..	..	..	..	...	5	...	...
..	..	..	..	..	...	...	...	1	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	1	1	6	5	4	...	2	15	4	16	..	..	..	1	..	..	..	..	..	..	..	..	4	1	12	...
..	..	..	1	..	...	...	1	...	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
..	..	..	..	..	...	...	1	...	......	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	1	..	..	..	...	...	2	...	......	1	..	..	1	..	..	..	..	..	..	..	..	..	1	1	...	...
1	..	..	..	..	...	...	1	...	......	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	1	..	..	..	...	...	1	...	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	2	...	......	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	...	...
..	..	..	..	..	...	...	1	...	1	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
1	..	1	1	..	...	...	5	13	......	14	..	..	1	..	2	..	..	..	1	..	..	..	4	12	2	...
1	..	..	..	..	...	...	1	...	......	......	..	..	1	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	8	...	1	2	..	..	1	..	1	..	..	..	1	..	..	3	1	4	...	3

TABLE 13.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN CAMDEN CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Traumatism by firearms	170	..	....	..	..	..	2	..	..	..	..	..	..
Traumatism by fall	172	..	....	..	..	..	..	1	1	..	..	..	2
Traumatism by machines	174	..	....	..	..	..	1	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	....	5	5	2	4	5	4	3	..	2	3
Injuries by animals	176	..	....	..	..	1	..	..	..	..	..	..	..
Excessive cold	178	1	....	..	..	..	..	..	..	..	..	..	..
Effects of heat	179	..	....	..	..	..	..	..	..	..	..	..	..
Homicide by firearms	182	..	....	..	..	..	2	..	3	1	1	..	..
Homicide by cutting or piercing instruments	183	..	....	..	..	..	..	..	..	1	..	1	..
Homicide by other means	184	..	1	..	..	..	..	1	..	..	..	..	..
Cause of death not specified or ill-defined	189	2	17	..	..	..	..	..	..	..	..	..	..

Total deaths, 1,519. Death-rate, 15.34.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2			2														2		
2		6	4	2			12	6		13				1		1			1			2	7	4	6	1
							1			1														1		
4	1	2	1				32	9	1	27	1		3	1	1		2		4			2	17	24		
							1			1														1		
								1		1														1		
		1					1								1								1			
	1						6	2	3	6					2								3	3	1	1
							1	1		2														1	1	
1							2	1		3													2	1		
							7	12	3	19														19		

TABLE 14.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN DOVER.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1								1				
Measles	6	1		1									
Diphtheria and croup	9			1	1								
Other epidemic diseases	19			1									
Tuberculosis of the lungs	28						1	2		1			
Abdominal tuberculosis	31						1						
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach liver	40											2	
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the breast	43										1		
Acute articular rheumatism	47									1			
Diabetes	50								1				
Other general diseases	55												
Alcoholism (acute or chronic)	56											1	
Simple meningitis	61								1				
Cerebral haemorrhage, apoplexy	64												1
Paralysis without specified cause	66												
Acute endocarditis	78												1
Organic diseases of the heart	79										1	2	
Diseases of the veins (varices, haemorrhoids, phlebitis, etc)	83												1
Acute bronchitis	89		1		1								
Other diseases of the stomach (cancer excepted)	103	2	2	1									
Diarrhoea and enteritis (Under 2 years)	104		4										
Diarrhoea and enteritis (2 years and over)	105			1									
Appendicitis and typhlitis	108						1						
Hernias, intestinal obstructions	109												
Bright's disease	120							1	1				
Diseases of the bladder	124												
Congenital debility, icterus and sclerema	151	8	1										
Other diseases peculiar to early infancy	152		2										
Senility	154												
Suicide by poison	155							1					
Absorption of deleterious gases (conflagration excepted)	168												
Accidental drowning	169												
Traumatism by fall	172												
Cause of death not specified or ill-defined	189		1	1									

Total deaths, 90. Death-rate, 11.37.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
							1	1		2														2		
							1	1		2														2		
								1		1														1		
							2	2		4													3	1		
							1		1	1														1		
		1					1									1							1			
		2		1			1	4		5													3	2		
		1					1			1													1			
								1		1													1			
								1		1														1		
			1				1	1	1	2													1		1	
		1						1						1											1	
							1			1													1			
		1	2				3	1		3	1												3		1	
1		3	2	1			5	2		5	1			1									4	1	2	
			1					1					1												1	
1	1						1	1		1				1									2			
	1	3		2			5	4		6	2		1										4	1	4	
1							1			1													1			
								2		2														2		
							2	3		5														5		
							1	3		4														4		
1			3				1	4		3		1						1					1	2	2	
							1			1														1		
		1					1						1										1			
			1				2	1		3													1	2		
		1					1							1									1			
							7	2		9														9		
							2			2														2		
				1	1		1	1		2															2	
								1											1					1		
			1				1			1															1	
1							1			1															1	
			1	1				2		1				1									1	1		
							2			2														2		

TABLE 15.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN EAST ORANGE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1						1	1					
Measles	6			1									
Scarlet fever	7			1		1			1				
Whooping cough	8		1										
Diphtheria and croup	9		2	1	1								
Erysipelas	18								1				
Tuberculosis of the lungs	28						1	1	5	5	4	3	3
Acute miliary tuberculosis	29									1			
Tuberculous meningitis	30		1	3	1								
Pott's disease	32									1			
Syphilis	37		1										
Cancer and other malignant tumors of the stomach, liver	40										1		1
Cancer and other malignant tumors of the peritonaeum intestines, rectum	41								1				
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45												1
Chronic rheumatism and gout	48												
Diabetes	50			1				1					1
Anaemia, chlorosis	54												
Simple meningitis	61			1		1							
Other diseases of the spinal cord	63			1									
Cerebral haemorrhage, apoplexy	64										1	1	
Softening of the brain	65												
Epilepsy	69												
Convulsions of infants	71			1									
Neuralgia and neuritis	73												
Acute endocarditis	78										2	3	1
Organic diseases of the heart	79						1		1	2	2	2	
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89												
Chronic bronchitis	90												
Bronchopneumonia	91	1											
Pneumonia	92		1	2	1			3		1	3	1	1
Pleurisy	93												
Pulmonary congestion, pulmonary apoplexy	94												
Asthma	96												1
Ulcer of the stomach	102											1	
Other diseases of the stomach (cancer excepted)	103											1	
Diarrhoea and enteritis (Under 2 years)	104		3	2									
Diarrhoea and enteritis (2 years and over)	105			1	1								
Appendicitis and typhlitis	108			1	1						1		
Cirrhosis of the liver	113			1									
Acute nephritis	119							1					
Bright's disease	120							1	1		1	2	1
Other diseases of the kidneys and annexa	122									1			
Diseases of the bladder	124												

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1	1		2														2		
							1			1														1		
							2	1		3													1	2		
								1		1														1		
							2	2	1	4														4		
								1		1													1			
1	1	2	2				14	14	3	24	1		2	1									17	8	3	
								1		1														1		
							3	2		5														5		
							1			1													1			
							1			1														1		
1	2	5	1				5	6		11													7		4	
1		1	1				2	2		3						1							2	1	1	
1								1		1													1			
	1							1		1															1	
			1					1		1															1	
1	1	2					3	2		4							1						5			
		1						1		1															1	
		2	1				2	4		5			1										4	2		
1	1						2			2													2			
			1				1	2		3														2	1	
				1			1	1		1	1													1	1	
2	3	12	7	3			13	16		20	1		2	2		1					1	2	17	1	11	
			1					1			1														1	
1							1			1														1		
							1			1														1		
1								1		1													1			
1		6	2	3			9	9	2	11	1		2	2		1	1						12	1	5	
	5	4	11	4	1		16	17		28	1			4									16	8	9	
2							2			2													2			
		2	5	1	1		4	5		6	1		1			1							3	2	4	
			1	2			1	2		2				1										2	1	
			1	1				2		1			1										1		1	
		1		1				3		3													1	1	1	
	3	5	7	5			10	23	5	25	2		3	2	1								8	10	15	
1		1					1	1		2													1		1	
		1	1	22				4		3				1											4	
								1		1													1			
			1				2			2													1		1	
							1			1														1		
							2	3	2	5														5		
1				1				4		4													1	2	1	
							1	2		3													1	2		
	1						1	1		2													1	1		
								1		1														1		
1	3	7	10	5			9	23	2	26	2	1									3		16	8	8	
								1		1													1			
			1	1			2			2															2	

TABLE 15.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,
THE YEAR ENDING

DEATHS IN EAST ORANGE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Puerperal phlegmasia alba dolens, embolus, sudden death	139	..	....	..	..	..	..	..	..	..	1	..	..
Gangrene	142	..	....	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	..	1	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	16	....	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	1	3	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by asphyxia	156	..	....	..	..	..	..	..	1	..	..	..	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	..	..	..	1
Burns (conflagration excepted)	167	..	....	..	..	1	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	..	..	..	..	..	2	1
Traumatism by fall	172	..	....	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	1	1	1	..	..	..	..	..	..	..	..	..

Total deaths, 317. Death-rate, 8.33.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1					1										1			
			1					1					1												1	
							1			1														1		
							8	8		16														16		
							2	2	1	4														4		
				1	1			2						2											2	
								1		1													1			
							1			1													1			
								1		1														1		
							2	1		1				1					1				2	1		
			2				1	1		2														1		1
							2	1	1	3														3		

TABLE 16.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ELIZABETH.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			2		1	2		1	6		1	1
Malaria	4										1		
Measles	6		6	1	1								
Scarlet fever	7			7	3	1		1	1				
Whooping cough	8		4	2									
Diphtheria and croup	9		3	4	3								
Including: Croup	9A		1										
Dysentery	14			1									
Erysipelas	18									1			
Purulent infection and septichaemia	20		1										1
Tetanus	24				1								
Tuberculosis of the lungs	28		1	2		2	5	8	18	21	14	16	5
Acute miliary tuberculosis	29							1		2			
Tuberculous meningitis	30		5	4	3								
Abdominal tuberculosis	31		1	1									
Tuberculosis of other organs	34				1								
Rickets	36		1										
Syphilis	37		1	1								1	
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40								1	2	3	2	3
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41									1	1	2	
Cancer and other malignant tumors of the female genital organs	42										1	2	2
Cancer and other malignant tumors of the breast	43									1			2
Cancer and other malignant tumors of the skin	44									1			
Cancer and other malignant tumors of other organs or of organs not specified	45												
Acute articular rheumatism	47												1
Scurvy	49		1			1							
Diabetes	50												
Exophthalmic goitre	51							1					
Leuchaemia	53			1									1
Anaemia, chlorosis	54												
Other general diseases	55	1											
Alcoholism (acute or chronic)	56								1			2	3
Encephalitis	60			1									
Simple meningitis	61		2				1		1		1		
Including: Cerebrospinal fever	61A						1						
Other diseases of the spinal cord	63												1
Cerebral haemorrhage, apoplexy	64	1	2							3	2	5	5
Softening of the brain	65												
Paralysis without specified cause	66								1				
Other forms of mental alienation	68												
Epilepsy	69												
Convulsions of infants	71	4	4 2										
Other diseases of the nervous system	74						1						
Pericarditis	77									1			
Acute endocarditis	78	1			2		2	2	1		5	2	6
Organic diseases of the heart	79		1		4	1		4	2	1		3	3
Angina pectoris	80										1		
Diseases of the arteries, atheroma aneurysm, etc.	81						1						1
Embolism and thrombosis	82										2		
Diseases of the larynx	87		1										
Acute bronchitis	89	3	1							1	1		
Chronic bronchitis	90												
Bronchopneumonia	91	6	16	12	2				1		1		
Pneumonia	92	2	20	18	3		2	2		3	3	1	3
Pleurisy	93			3									1

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		1					12	3		9	1								5				7	8		
								1											1				1			
							6	2	1	8														8		
							5	8		13													2	11		
							4	2		6														6		
							6	4		10														10		
								1	1	1														1		
				1				2		1				1										1	1	
		1					2			1			1										1		1	
								2		2														1	1	
							1			1														1		
8	4	1	1	1			74	33	4	67	2		10	11	2		3	1	7		4		51	48	8	
							2	1	2	3													1	2		
							5	7		12														12		
1							1	2		2	1													3		
1							1	1		1			1										1	1		
							1			1														1		
1							3	1		2					1				1				2	2		
		1					1							1									1			
2	5	5	3	1			13	14		15	1		4	3				1			3		19	1	7	
3	2	1	2				4	8		4	1		1	3			1		1		1		7	2	3	
2		1	1	1				10		4	1			2	1		1		1				9		1	
		2	1					6		2	2			2									1	4	1	
								1		1													1			
	3	2						5		3			2										2	1	2	
			1					2		1				1									1		1	
							2			1							1							2		
1	1	4	1	1			6	2		3			2	1			1				1		6		2	
								1		1														1		
								2		2														2		
		2					1	1		2														1	1	
								1		1														1		
	1	1					8			2	1		2	3									4	3	1	
								1		1														1		
							4	1		3					1		1						2	3		
							1			1														1		
		1						2						1							1		1		1	
4	6	24	13	3	1		31	38	5	37	1	2	11	9	2	1	2		2		1	1	32	12	24	1
		1					1			1													1			
1		1	2	4			5	4		5	2				1	1							6		3	
			2				2			1	1												1		1	
			1					1			1														1	
							4	6	2	10														10		
								1									1						1			
		1						2		1									1				1		1	
5	5	12	16	7	1		28	39		33	2	1	11	13	2	1			4				32	13	22	
5	6	13	3	3	1		34	16	1	26	1		6	6	3	1	2	1	2		2		27	11	12	
		1						2	1	1				1									1		1	
		2	2				3	3		5				1									2	2	2	
			1				2	1		1							1		1				3			
			1					2		1			1										1	1		
	1		3	1	1		3	9	1	8			2	1	1								4	4	4	
		1	2				2	1		1				1		1							2	1		
	1		4	1			25	19	1	40			1	1				1			1		1	38	5	
9	5	12	7	5	1		54	42	1	64	1		11	13	3		1		2			1	20	61	15	
1	1						1	5		3	1			1					1				2	4		

TABLE 16.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ELIZABETH.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Pulmonary congestion, pulmonary apoplexy	94	1	1							1	1	2	1
Gangrene of the lung	95							1					
Asthma	96												
Other diseases of the respiratory system (tuberculosis excepted)	98		1										1
Diseases of the pharynx	100										1		
Ulcer of the stomach	102				1				1		1	1	1
Other diseases of the stomach (cancer excepted)	103	2	2										
Diarrhoea and enteritis (Under 2 years)	104	12	95	27									
Diarrhoea and enteritis (2 years and over)	105			5									
Appendicitis and typhlitis	108					1	1	1					1
Hernias, intestinal obstructions	109			1			1					1	
Other diseases of the intestines	110		2								1		
Cirrhosis of the liver	113									1	1	3	2
Other diseases of the liver	115												
Simple peritonitis (nonpuerperal)	117									1			
Acute nephritis	119				2				1	1			1
Bright's disease	120	1		1	2	1	1	3	3	2	3	5	5
Other diseases of the kidneys and annexa	122												1
Calculi of the urinary passages	123												
Diseases of the bladder	124								1				
Diseases of the prostate	126												
Other diseases of the uterus	130												1
Accidents of pregnancy	134										1		
Puerperal haemorrhage	135									2		1	
Other accidents of labor	136								1				
Puerperal septichaemia	137								1	5	3		
Puerperal albuminuria and convulsions	138						1		1		1		
Puerperal phlegmasia alba dolens, embolus, sudden death	139								1				
Gangrene	142												
Acute abscess	144											1	
Other diseases of the skin and annexa	145	1											
Diseases of the bones (tuberculosis excepted)	146				1								
Diseases of the bones (tuberculosis and rheumatism excepted)	147							1					
Congenital malformations (stillbirths not included)	150	1											
Congenital debility, icterus and sclerema	151	61	2										
Other diseases peculiar to early infancy	152	7	2										
Senility	154												
Suicide by poison	155									1	1	1	1
Suicide by asphyxia	156									1			
Suicide by hanging or strangulation	157												
Suicide by firearms	159											1	
Suicide by jumping from a high place	161							1					
Other acute poisonings	165								1				
Conflagration	166												1
Burns (conflagration excepted)	167			5	2			2	1		1		
Absorption of deleterious gases (conflagration excepted)	168			2			1	1			1	1	
Accidental drowning	169				1		1	1		2	2	1	
Traumatism by fall	172				1							2	1
Traumatism by machines	174										1	1	
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175				3	3	4	2	3	2	7	1	4
Excessive cold	178									1			
Effects of heat	179												
Electricity (lightning excepted)	181						1	2					
Homicide by firearms	182												1
Cause of death not specified or ill-defined	189	3	11	1									

Total deaths, 1,158. Death-rate, 14.74.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	2	1	1	1	...	...	6	6	1	8	1	3	...	...	...	...	...	...	...	...	...	...	4	4	4	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	2	2	...	...	...	3	1	...	2	...	...	2	...	...	...	...	...	...	...	...	...	1	...	3	...
...	...	...	...	...	...	...	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	5	1	...	3	...	...	...	1	...	...	1	1	...	...	...	...	4	1	1	...
...	...	1	1	...	...	...	5	1	...	5	...	...	...	1	...	...	...	...	...	...	...	...	2	4	...	...
...	...	...	...	...	...	...	65	69	...	133	...	...	...	...	...	...	...	...	1	...	...	...	...	134	...	...
...	1	1	3	2	1	...	4	9	...	7	1	...	3	2	...	...	...	...	...	...	...	...	3	7	3	...
...	1	1	1	...	...	...	5	2	...	3	1	...	1	1	...	...	...	...	1	...	...	...	3	3	1	...
...	1	...	...	...	...	...	2	2	...	1	...	...	2	...	...	...	...	...	1	...	...	...	1	2	1	...
...	...	...	...	...	...	...	2	1	...	2	...	...	...	...	...	...	...	...	1	...	...	...	1	2	...	...
1	...	3	...	...	...	...	6	5	1	4	1	...	3	2	...	...	1	...	...	...	...	...	6	2	3	...
1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...
1	...	1	...	...	...	...	3	4	1	5	...	...	...	1	...	...	...	...	...	...	...	1	2	3	2	...
8	4	9	4	3	...	...	27	27	3	35	1	...	5	8	1	...	2	...	1	...	...	1	31	14	8	1
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	1	...	...	...	3	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...
...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	3	...	2	...	...	1	...	...	...	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	9	1	4	...	...	1	1	1	...	2	...	...	...	...	...	9	...	...	...
...	...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...	...	...	2	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	44	19	2	63	...	...	...	...	...	...	...	...	...	...	...	...	...	63	...	...
...	...	...	...	...	...	...	5	4	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...
...	...	...	1	3	1	...	1	4	...	3	1	...	...	...	1	...	...	...	...	...	...	...	1	...	4	...
...	...	...	...	...	...	...	2	2	...	...	...	...	1	1	...	...	1	...	...	...	1	...	3	1	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
...	2	...	...	...	...	...	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
...	1	1	...	...	...	...	2	1	...	1	...	...	...	1	1	...	...	...	...	...	...	...	2	...	1	...
...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	...	...	...	...	4	8	1	8	...	...	2	...	1	...	1	...	...	...	...	...	2	9	1	...
...	...	...	...	...	...	...	3	3	...	2	...	...	2	...	...	...	2	...	...	...	...	...	2	4	...	...
...	...	...	...	...	...	...	8	...	1	5	...	...	...	...	...	1	1	...	...	...	1	...	4	4	...	...
...	2	3	2	...	...	...	6	5	...	4	1	...	2	2	...	...	1	...	1	...	...	...	6	1	4	...
...	...	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	1	...	...	...	...	29	1	3	18	...	...	1	1	1	...	6	...	...	...	1	2	15	12	1	2
...	...	1	1	...	...	...	3	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1	1	1	...
...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	10	5	2	15	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...

TABLE 17.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ENGLEWOOD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1								1	2	1		
Measles	6		1										
Scarlet fever	7			1									
Diphtheria and croup	9		1	1	1								
Other epidemic diseases	19		1										
Pellagra	26				1								
Tuberculosis of the lungs	28			1								1	2
Acute miliary tuberculosis	29					1							
Tuberculous meningitis	30			1									
Abdominal tuberculosis	31			1									
Syphilis	37		1						1				
Cancer and other malignant tumors of the buccal cavity	39								1				
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Acute articular rheumatism	47												
Diabetes	50					1							
Alcoholism (acute or chronic)	56							1					
Simple meningitis	61						1		1				
Including: Cerebrospinal fever	61A			1									
Cerebral haemorrhage, apoplexy	64												2
Convulsions of infants	71		1										
Other diseases of the nervous system	74		1										
Acute endocarditis	78											2	
Organic diseases of the heart	79			1		1					1		1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc	81												
Diseases of the larynx	87		1										
Acute bronchitis	89												
Chronic bronchitis	90												
Bronchopneumonia	91												
Pneumonia	92		1	2									1
Pulmonary congestion, pulmonary apoplexy	94		1										
Asthma	96												
Diseases of the pharynx	100			1									
Other diseases of the stomach (cancer excepted)	103		5										
Diarrhoea and enteritis (Under 2 years)	104		5	1									
Diarrhoea and enteritis (2 years and over)	105								1				
Appendicitis and typhlitis	108												
Hernias, intestinal obstructions	109												
Bright's disease	120										1	2	1
Calculi of the urinary passages	123											1	
Other diseases of the uterus	130												
Other accidents of labor	136											2	
Puerperal septichaemia	137							1					
Congenital debility, icterus and sclerema	151	6	1										
Suicide by poison	155											1	
Suicide by firearms	159			1									
Absorption of deleterious gases (conflagration excepted)	168							1					
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175				1							1	
Excessive cold	178							1					
Effects of heat	179										1		
Cause of death not specified or ill-defined	189		1										

Total [illegible] 4. Death-rate, 12.49.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1	3		2			1	1									4			
							1			1														1		
							1			1														1		
							2	1		3														3		
								1		1														1		
								1		1														1		
							3	1	1	2			1				1						4			
		1						2		2													1	1		
								1		1														1		
								1	1	1														1		
							1	1	1	2														2		
								1			1												1			
2	1	1	2				2	4	1	3		1	1	1									3	1	2	
				1				1		1														1		
		1						1						1											1	
1	1							2		1		1											1		1	
			1					1					1												1	
								1		1														1		
		1					2			1				1									1	1		
								2		1				1									1	1		
								1		1														1		
1	1	3	2	2			7	4	1	6		1	2		1	1							8		3	
							1			1														1		
							1			1														1		
1			3				1	5	2	4			1	1									3	1	2	
1	2			2			4	5	3	6				1	1						1		3	4	2	
			1					1		1													1			
			3				1	2		3													2		1	
							1			1														1		
				1				1				1													1	
			1				1							1										1		
			1					1						1											1	
		2	2	2			5	5		6			1	2					1				4	4	2	
							1			1														1		
			1				1					1											1			
								1		1														1		
			1				5	1		6														5	1	
							4	2	3	6														6		
							1								1								1			
	1							1		1															1	
		1					1			1													1			
		2	3				4	5		4			1	2		1			1				4	1	4	
								1		1															1	
		1						1								1							1			
								2							1				1				2			
								1														1	1			
							5	2		7														7		
							1			1													1			
							1			1														1		
								1										1						1		
			1					1		1															1	
		1					3			2	1												2	1		
							1			1														1		
							1			1														1		
							1			1														1		

TABLE 18.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN GARFIELD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6		1	5									
Diphtheria and croup	9				2								
Tuberculosis of the lungs	28					1	3	1	3	3	2	2	
Acute miliary tuberculosis	29							1					
Tuberculous meningitis	30			2									
Abdominal tuberculosis	31				1				1				
Cancer and other malignant tumors of the stomach, liver	40											1	1
Cancer and other malignant tumors of other organs or of organs not specified	45												
Acute articular rheumatism	47												
Anaemia, chlorosis	54												1
Simple meningitis	61		1										
Cerebral haemorrhage, apoplexy	64												1
Convulsions of infants	71	1		1									
Pericarditis	77						1						
Acute endocarditis	78												1
Organic diseases of the heart	79									1			
Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	83												
Acute bronchitis	89		2										
Chronic bronchitis	90		1										
Bronchopneumonia	91	2	7	3									
Pneumonia	92		7	2	1			1					1
Other diseases of the stomach (cancer excepted)	103		1										
Diarrhoea and enteritis (Under 2 years)	104	7	11	5									
Other diseases of the liver	115	1											
Acute nephritis	119												
Bright's disease	120								1		1		1
Other diseases of the kidneys and annexa	122												
Congenital malformations (stillbirths not included)	150		1										
Congenital debility, icterus and sclerema	151	9	2										
Other diseases peculiar to early infancy	152	1											
Lack of care	153	1											
Suicide by poison	155												1
Other acute poisonings	165											1	
Burns (conflagration excepted)	167			1									
Accidental drowning	169									1			
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175							1			1		
Effects of heat	179												
Cause of death not specified or ill-defined	189		3										

Total deaths, 138. Death-rate, 11.26.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	...	...	...	...	4	2	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	9	6	...	1	...	...	2	...	4	...	8	...	...	...	...	...	11	3	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...
1	1	...	...	...	...	...	4	...	...	...	1	...	...	...	...	...	1	...	2	...	...	...	2	...	2	...
...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	2	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	1	...	2	...	...	...	2	2	...	1	...	...	1	1	...	...	...	...	...	1	...	...	3	...	1	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
...	1	...	...	...	...	...	1	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...
...	2	1	2	...	...	...	2	4	...	...	...	...	1	1	3	...	1	...	...	...	...	...	3	...	3	...
...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	3	...	...	2	...	...	...	...	...	...	1	...	...	...	...	...	1	2	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	8	4	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	12	...	...
...	...	1	...	...	...	...	8	5	...	10	...	...	...	...	2	...	1	...	...	...	...	...	1	11	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	8	15	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...	23	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
...	...	2	...	...	...	...	3	2	...	1	...	...	...	...	2	...	1	...	...	1	...	...	5	...	...	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	7	4	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...
1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	2	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...

TABLE 19.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN GLOUCESTER CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1					2	2						
Malaria	4			1									
Measles	6			2									
Including: Croup	9A			1									
Tuberculosis of the lungs	28						1		1	2	1	1	1
Acute miliary tuberculosis	29								1				
Tuberculous meningitis	30		1			1							
Disseminated tuberculosis	35										1		
Cancer and other malignant tumors of the stomach, liver	40												1
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												
Encephalitis	60												
Cerebral haemorrhage, apoplexy	64											1	
Paralysis without specified cause	66												
Other forms of mental alienation	68								1				
Convulsions of infants	71		2										
Neuralgia and neuritis	73												
Diseases of the ears	76		1										
Acute endocarditis	78							1					
Organic diseases of the heart	79					1						1	
Acute bronchitis	89		1										
Bronchopneumonia	91			1									1
Pneumonia	92		4										1
Pulmonary congestion, pulmonary apoplexy	94						1						
Other diseases of the stomach (cancer excepted)	103	1	1					1					
Diarrhoea and enteritis (Under 2 years)	104		4										
Appendicitis and typhlitis	108						1						
Hernias, intestinal obstructions	109												
Other diseases of the intestines	110												
Cirrhosis of the liver	113												
Acute nephritis	119										1		
Bright's disease	120		1										
Diseases of the bladder	124												
Puerperal septichaemia	137									1			
Puerperal albuminuria and convulsions	138											1	
Congenital debility, icterus and sclerema	151	5	4										
Other diseases peculiar to early infancy	152		1										
Suicide by firearms	159								1		1		
Accidental drowning	169				1		1						1
Traumatism by fall	172										1		
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175						1		1		1		
Cause of death not specified or ill-defined	189		1										

Total deaths, 125. Death-rate, 12.47.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2	2		4														4		
							1			1														1		
							1	1		1									1					2		
							1			1														1		
	1						3	5		6				1		1							5	1	2	
							1			1														1		
							1	1		2														2		
							1			1														1		
							1			1													1			
	1	1						2		1				1									1		1	
				1				1			1														1	
	1							1		1													1			
	1						1			1													1			
				1				1		1															1	
1		6	3	1			6	6		7			1	4									5	1	6	
		1						1		1													1			
								1		1														1		
							1	1		2														2		
				1				1						1										1		
								1		1														1		
1			2				2	2		3												1	1	2	1	
	1	1	3	1			2	6		6	1					1							5	1	2	
				1			1	1		2														1	1	
		1		1			2	2		3			1										1	1	2	
	1	2	2	1			5	6		9	1			1									3	4	4	
								1		1														1		
							1	2		3													1	2		
							3	1		4														4		
							1			1														1		
	1							1		1													1			
		1					1			1															1	
1							1			1													1			
1							1	1		1				1									1		1	
	3	1	3	1			4	5		5	1			3									2	2	5	
1								1		1													1			
								1		1													1			
								1		1													1			
							7	2		9														9		
								1		1														1		
							1	1		2													1	1		
							3			2												1		2		1
		1	3				2	3		3				1		1							2		3	
	1						3	1		3				1									1	3		
							1			1														1		

TABLE 20.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN GUTTENBERG.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diphtheria and croup	9			6	3								
Including: Croup	9A				1								
Dysentery	14		1										
Tuberculosis of the lungs	28					1	1		1	2	2	3	3
Tuberculous meningitis	30		1		1	1							
Abdominal tuberculosis	31					1							
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the breast	43												
Diabetes	50												
Cerebral haemorrhage, apoplexy	64												
Convulsions of infants	71		1										
Acute endocarditis	78												
Acute bronchitis	89		1										
Bronchopneumonia	91		3	1									
Pneumonia	92											1	1
Pleurisy	93		1										
Ulcer of the stomach	102												
Other diseases of the stomach (cancer excepted)	103												
Diarrhoea and enteritis (Under 2 years)	104	1	2										
Diarrhoea and enteritis (2 years and over)	105			1									1
Acute nephritis	119										1		
Bright's disease	120										1		1
Gangrene	142												
Congenital debility, icterus and sclerema	151	1											
Suicide by asphyxia	156												
Suicide by hanging or strangulation	157											1	
Suicide by cutting or piercing instruments	160												
Absorption of deleterious gases (conflagration excepted)	168							1					
Accidental drowning	169						1						
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175						1						
Cause of death not specified or ill-defined	189		1										

Total deaths, 73. Death-rate, 12.00.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	...	...	...	...	4	5	...	8	...	...	...	...	...	...	1	...	...	...	...	...	...	9	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
2	1	1	...	...	...	...	9	8	...	9	...	...	4	1	1	...	1	...	...	...	1	...	8	5	4	...
...	...	...	...	...	...	...	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	2	1	...	...	...	3	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	2	...	1	...
...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
...	...	1	1	...	...	...	...	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	1	...	...	...	...	...	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	3	1	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...
...	1	...	1	...	...	...	3	1	...	1	...	...	3	...	...	...	...	...	...	...	...	...	2	1	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	2	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	2	1	...	1	...	...	1	1	...	...	...	...	...	...	...	...	2	...	1	...
...	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...

TABLE 21.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES.
THE YEAR ENDING

DEATHS IN HACKENSACK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1								1	1		1	
Measles	6		1										
Scarlet fever	7										1		
Influenza	10		1										
Tuberculosis of the lungs	28							1	5	1	1	1	1
Tuberculous meningitis	30	1	2	1									
Abdominal tuberculosis	31			1								1	
Tuberculosis of other organs	34												
Syphilis	37												1
Cancer and other malignant tumors of the stomach, liver	40												3
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												1
Cancer and other malignant tumors of the breast	43												
Diabetes	50								1				
Other general diseases	55			1									
Simple meningitis	61			1		1		1			1		
Including: Cerebrospinal fever	61A		1	1									
Cerebral haemorrhage, apoplexy	64	1							1				1
Paralysis without specified cause	66												
Other forms of mental alienation	68									1			
Epilepsy	69								1				
Convulsions of infants	71	1	2										
Acute endocarditis	78			1									
Organic diseases of the heart	79												
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81								1				
Diseases of the veins (varices, haemorrhoids, phlebitis, etc)	83												
Acute bronchitis	89												
Bronchopneumonia	91	2	1	1									
Pneumonia	92	1	2	1	1					2			
Pleurisy	93												
Pulmonary congestion, pulmonary apoplexy	94											1	1
Diseases of the pharynx	100		1	1									
Ulcer of the stomach	102											1	
Other diseases of the stomach (cancer excepted)	103	1	2	1									
Diarrhoea and enteritis (Under 2 years)	104	1	11	4									
Diarrhoea and enteritis (2 years and over)	105			1									
Appendicitis and typhlitis	108					1					1		1
Other diseases of the intestines	110		1										
Acute yellow atrophy of the liver	111												
Cirrhosis of the liver	113												
Other diseases of the liver	115												1
Bright's disease	120								1		1		
Diseases of the bladder	124											1	
Other diseases of the urethra, urinary abscess, etc.	125												
Nonvenereal diseases of the male genital organs	127												1
Uterine tumor (noncancerous)	129									1			
Other diseases of the uterus	130							1					
Puerperal septichaemia	137								1				
Puerperal albuminuria and convulsions	138						1						
Acute abscess	144		1										
Other diseases of the skin and annexa	145												
Congenital malformations (stillbirths not included)	150			1									
Congenital debility, icterus and sclerema	151	13	1										
Senility	154												

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							3			2							1						3			
							1			1														1		
								1					1										1			
							1			1														1		
		3					7	6	4	10			3										8	3	2	
							2	2		4														4		
							1	1		2														2		
		1						1		1														1		
								1											1				1			
3	1	3	1	1			8	4		7			3	1	1								7	3	2	
			1					1		1														1		
				1				2					1			1							1		1	
		1						1		1													1			
								1					1											1		
							1			1														1		
							3	1		4													1	3		
								2		2														2		
	2	6	3	2			7	9	1	9		1	4		1		1						6	6	4	
			1					1		1															1	
							1			1														1		
								1		1														1		
							2	1	1	3														3		
		1	1	1			1	3		3												1		1	3	
1	2	5	2	1	1		6	6		10			1							1			7	1	4	
			1					1		1													1			
		2					2	1		2					1								1		2	
		1						1					1										1			
				1				1		1															1	
							1	3	1	4														4		
1	1		1		1		5	8	3	11			1								1		2	9	2	
			1					1		1															1	
		1	2	2			3	4		5			2										2		5	
	1						1	2		3														3		
								1									1						1			
							1	3		4														4		
							6	10		16														16		
1							1	1		2													1	1		
		1					2	2	1	3									1				3	1		
							1			1														1		
			1				1									1							1			
			1				1							1									1			
		1		1			3			2			1										3			
		3	5				6	4		7			3										6	1	2	1
							1			1													1			
1							1			1													1			
							1			1														1		
								1													1		1			
								1	1	1													1			
								1		1													1			
								1	1	1														1		
								1		1														1		
	1						1						1										1			
							1			1														1		
							7	7		14														14		
			1	4			3	2		5													2	1	2	

TABLE 21.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN HACKENSACK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Suicide by asphyxia	156	..	..	..	..	..	..	..	..	..	1	..	..
Suicide by hanging or strangulation	157	..	..	..	..	..	..	1	..	..	..	..	..
Suicide by drowning	158	..	..	..	..	..	..	..	1	..	..	..	..
Suicide by firearms	159	..	..	..	..	..	..	..	..	..	..	..	..
Burns (conflagration excepted)	167	..	..	1	..	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	..	..	..	..	..	..	..	..	..	1	..
Accidental drowning	169	..	..	..	..	..	1	..	..	..	..	..	..
Traumatism by fall	172	..	..	..	..	..	..	..	..	..	..	1	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.	175	..	..	..	..	1	..	..	..	..	1	..	1
Excessive cold	178	..	..	..	..	..	..	..	..	..	..	..	1
Homicide by firearms	182	..	..	..	..	..	1	..	..	1	..	..	..
Cause of death not specified or ill-defined	189	..	1	1	..	..	..	..	..	..	..	..	..

Total deaths, 219. Death-rate, 14.38.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	1	..	..	..	...	...	1	1	....	1	..	..	1	..	..	..	..	..	..	..	..	..	1	...	1	...
..	..	..	..	..	...	...	...	1	....	....	..	..	..	..	..	..	..	..	..	..	1	..	...	1	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
..	..	..	1	..	...	...	1	...	....	....	..	..	1	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	1	..	..	...	...	1	1	....	1	..	..	..	..	..	..	..	..	..	1	..	..	...	2	...	...
..	..	..	1	1	...	...	1	2	....	1	..	..	1	1	..	..	..	..	..	..	..	..	1	1	1	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	2	..	...	...	1	2	....	1	..	..	..	1	..	..	..	..	..	..	..	1	1	1	...	1
..	1	..	..	..	...	...	3	1	....	2	..	..	..	..	..	..	1	..	..	1	..	..	2	2	...	...
..	1	..	..	..	...	...	2	...	....	1	..	..	..	..	..	..	..	..	..	..	..	1	...	2	...	...
..	..	..	..	..	...	...	1	1	....	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	...	...
..	..	..	..	..	...	...	1	1	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	2	...	...

TABLE 22.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN HAMMONTON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1	..	....	..	..	1	..	1	..	..	..	2	..
Dysentery	14	1	....	..	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	....	..	..	..	..	..	..	1	..	1	..
Acute articular rheumatism	47	..	....	..	..	..	..	..	..	..	1	..	..
Simple meningitis	61	..	1	..	1	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	....	..	..	..	..	..	..	..	..	..	..
Epilepsy	69	..	....	..	..	..	..	..	..	..	..	1	..
Convulsions of infants	71	1	....	..	..	..	..	..	..	..	..	..	..
Pericarditis	77	..	....	..	..	..	..	1	..	..	..	..	..
Acute endocarditis	78	..	....	..	..	..	..	..	..	..	..	..	..
Organic diseases of the heart	79	..	....	..	..	..	..	..	..	..	..	..	..
Acute bronchitis	89	1	1	..	..	..	..	..	..	..	..	1	..
Bronchopneumonia	91	..	....	..	..	..	..	1	..	..	..	..	..
Pneumonia	92	..	....	..	1	..	..	..	..	..	..	..	..
Pulmonary congestion, pulmonary apoplexy	94	1	1	1	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted)	103	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	..	1	1	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the liver	115	..	....	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	..	....	..	..	..	..	..	..	..	1	..	..
Puerperal haemorrhage	135	..	....	..	..	..	..	..	..	..	1	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Other acute poisonings	165	..	1	2	..	..	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	....	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	1	..	..	..	..	..	..	..	..	..	..

Total deaths, 56. Death-rate, 10.39.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
1	...	...	...	...	...	...	1	4	...	4	...	...	...	...	1	...	...	...	...	...	...	...	4	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	1	...	...	...	1	2	...	2	...	...	1	...	...	...	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	1	...	2	3	...	...	3	3	...	4	...	1	...	...	1	...	...	...	...	...	...	...	2	1	3	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
...	...	...	3	...	...	...	1	2	...	2	...	...	...	...	1	...	...	...	...	...	...	...	1	...	2	...
1	1	2	2	1	...	...	5	2	...	3	1	...	1	...	2	...	...	...	...	...	...	...	5	...	1	1
...	...	...	...	1	...	...	3	1	...	4	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	1	1	1	...	...	...	2	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	3	...	...	...
...	...	1	...	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	2	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...

TABLE 23.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN HARRISON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6			2									
Scarlet fever	7			2	1								
Whooping cough	8		2										
Diphtheria and croup	9			4									
Including: Croup	9A			1	1								
Tuberculosis of the lungs	28					1	2	2	3	4	4	5	2
Tuberculous meningitis	30				1								
Cancer and other malignant tumors of the stomach, liver	40											1	1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41			1		1							
Cancer and other malignant tumors of the female genital organs	42										1		
Cancer and other malignant tumors of other organs, or of organs not specified	45								1				
Leuchaemia	53					1							
Simple meningitis	61		1										
Cerebral haemorrhage, apoplexy	64								1				2
Epilepsy	69												
Convulsions of infants	71	1	5										
Pericarditis	77												
Acute endocarditis	78								1			1	1
Organic diseases of the heart	79						1					1	
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81											1	
Diseases of the lymphatic system (lymphangitis, etc)	84		1										
Acute bronchitis	89			2		1							
Chronic bronchitis	90												
Bronchopneumonia	91	1	7	1									
Pneumonia	92			1			1		2		1	2	
Pleurisy	93			1									1
Other diseases of the stomach (cancer excepted)	103		1	1									1
Diarrhoea and enteritis (Under 2 years)	104	3	27	4									
Diarrhoea and enteritis (2 years and over)	105			1									1
Appendicitis and typhlitis	108												
Hernias, intestinal obstructions	109											1	
Cirrhosis of the liver	113			1		1			1		1	1	
Other diseases of the liver	115									1			
Acute nephritis	119							1					
Bright's disease	120										2	1	
Diseases of the bladder	124												
Accidents of pregnancy	134										1		
Congenital debility, icterus and sclerema	151	8											
Other diseases peculiar to early infancy	152		2										
Senility	154												
Suicide by hanging or strangulation	157												
Absorption of deleterious gases (conflagration excepted)	168	1											
Accidental drowning	169							1	1				
Traumatism by fall	172			1	1					1			1
Electricity (lightning excepted)	181									1			
Cause of death not specified or ill-defined	189		1										

Total deaths, 211. Death-rate, 13.91.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								2		2														2		
							1	2		3														3		
							4			4														4		
							4			4														4		
							2			2														2		
1							17	7		15				2	1		1		3		2		14	10		
								1		1														1		
2		1						5		2				1			1				1		3		2	
		1					1	2		2				1										2	1	
								1		1													1			
		1					1	1						1		1							1	1		
	1						2			2													1	1		
							1			1														1		
1	2	2	3	1			6	6		2	1		1	4	1			1				2	5	4	3	
1							1			1													1			
							4	2		6														6		
			1					1						1											1	
3		3					3	6		2	1		1	2	2							1	2	3	4	
	2	1		1			5	1		3	1			1	1								1	3	2	
		1					1															1			1	
				2			1	2		1			1	1										1	2	
								1		1														1		
							1	2		3														3		
				1				1						1											1	
							6	3		9														9		
1	1	1	2	1			10	3		4	1		1	4			1					2	5	6	2	
							1	1		2													1	1		
							2	1		3														3		
							21	13		34														34		
1				1			4			2				2									3	1		
		1					1							1											1	
								1		1													1			
1	2						5	3		4	1		1	1	1								4	3	1	
							1			1														1		
	1			1			2	1		1				1		1							2		1	
	1	3	3				2	8		3			1	6									4	1	5	
				1			1							1										1		
								1		1													1			
							6	2		8														8		
							2			2														2		
				1				1		1													1			
	1						1									1								1		
							1			1														1		
							2			1							1							2		
	1						3	2		4									1				3	2		
							1														1			1		
							1			1														1		

TABLE 24.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,

THE YEAR ENDING

DEATHS IN HOBOKEN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1					2	1	1	1		1		
Measles	6			3									
Scarlet fever	7			2									
Whooping cough	8		3										
Diphtheria and croup	9			7	5								
Including: Croup	9A			4	1								
Dysentery	14		1										
Erysipelas	18	1	1				1	1		1		1	1
Purulent infection and septichaemia	20		1							1			1
Tetanus	24					1							
Tuberculosis of the lungs	28	1	2	5		1	10	16	19	18	25	19	17
Acute miliary tuberculosis	29			1			1		1	1			
Tuberculous meningitis	30			5	2		1						
Abdominal tuberculosis	31								1		1	1	
Tuberculosis of other organs	34							1			1		
Syphilis	37	2	3										
Cancer and other malignant tumors of the buccal cavity	39										1		
Cancer and other malignant tumors of the stomach, liver	40								1	2	1	1	2
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												2
Cancer and other malignant tumors of the female genital organs	42								1		3	1	3
Cancer and other malignant tumors of the breast	43										1		
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45									1	2		1
Other tumors (tumors of the female genital organs excepted)	46							1					
Acute articular rheumatism	47			1									
Diabetes	50								1	1			
Leuchaemia	53										1		
Other general diseases	55		1										
Alcoholism (acute or chronic)	56									2	2		1
Encephalitis	60												
Simple meningitis	61		6	6		1			1				
Including: Cerebrospinal fever	61A		3	6					1				
Other diseases of the spinal cord	63												
Cerebral haemorrhage, apoplexy	64		2								3	4	7
Paralysis without specified cause	66												1
Epilepsy	69												2
Convulsions of infants	71	8	9	2									
Neuralgia and neuritis	73												1
Other diseases of the nervous system	74												1
Pericarditis	77							1					
Acute endocarditis	78			2	3	2	2	1	1	3	4	2	4
Organic diseases of the heart	79	2			2	1	2	2	3	7	6	6	5
Angina pectoris	80										1		1
Diseases of the arteries, atheroma aneurysm, etc.	81											1	
Embolism and thrombosis	82												
Diseases of the larynx	87									1			
Acute bronchitis	89	2	1	1						1			
Bronchopneumonia	91	3	10	11									
Pneumonia	92		10	14	1	1	2	2	4	4	4	3	5
Pleurisy	93			1	1				1				1
Pulmonary congestion, pulmonary apoplexy	94								1		1	1	1
Gangrene of the lung	95												
Asthma	96										1		
Other diseases of the respiratory system (tuberculosis excepted)	98				1								

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
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17	11	10	...	...	...	...	119	52	1	98	...	...	23	25	5	2	5	4	4	2	2	1	70	75	26	...
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3	13	24	10	5	...	...	36	35	...	20	...	...	21	16	4	1	3	1	2	...	3	...	34	12	25	...
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8	5	13	13	1	...	...	37	27	...	22	2	2	16	14	6	...	...	...	...	...	2	...	35	12	17	...
12	5	10	8	...	...	...	49	22	1	33	2	...	14	7	5	1	2	2	3	...	1	1	32	18	20	1
...	2	2	1	...	...	...	3	4	...	1	...	...	5	...	...	...	...	...	...	...	1	...	6	...	1	...
...	...	1	3	5	...	...	8	2	...	...	...	...	7	2	...	1	...	...	...	...	...	...	3	1	6	...
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1	...	2	...	...	...	...	16	11	1	25	...	...	...	1	1	...	...	...	...	...	...	...	3	24	...	...
10	5	16	7	2	...	...	59	31	...	35	...	...	16	19	10	3	1	3	1	2	...	...	30	40	19	1
1	...	...	1	...	...	...	5	1	...	4	...	...	1	...	1	...	...	...	...	...	...	...	3	2	1	...
...	...	2	2	...	...	...	3	5	...	3	...	...	2	2	1	...	...	...	...	...	...	...	4	...	4	...
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TABLE 24.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,

THE YEAR ENDING

DEATHS IN HOBOKEN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diseases of the pharynx	100										2		
Ulcer of the stomach	102												
Other diseases of the stomach (cancer excepted)	103	2	3	1								1	1
Diarrhoea and enteritis (Under 2 years)	104	5	38	6									
Diarrhoea and enteritis (2 years and over)	105			2	1					1	1	1	
Appendicitis and typhlitis	108						2	3		1	2		2
Hernias, intestinal obstructions	109			1									
Other diseases of the intestines	110									1	1		
Acute yellow atrophy of the liver	111									1			
Cirrhosis of the liver	113											1	2
Other diseases of the liver	115								1				1
Simple peritonitis (nonpuerperal)	117												
Acute nephritis	119			1	1			1			2	3	2
Bright's disease	120			1	1			1	1	5	8	10	8
Other diseases of the kidneys and annexa	122												1
Calculi of the urinary passages	123												1
Diseases of the bladder	124												
Diseases of the prostate	126												
Uterine tumor (noncancerous)	129											1	
Other diseases of the uterus	130								1				
Salpingitis and other diseases of the female genital organs	132								1 1		1 1		
Nonpuerperal diseases of the breast (cancer excepted)	133												
Puerperal haemorrhage	135							1	1		1		
Other accidents of labor	136											1	
Puerperal septichaemia	137								3	2		1	
Puerperal albuminuria and convulsions	138								1	1	1	1	
Puerperal phlegmasia alba doiens, embolus, sudden death	139									1			
Gangrene	142												1
Acute abscess	144			1								1	
Other diseases of the skin and annexa	145												
Diseases of the bones (tuberculosis excepted)	146						2						
Amputations	148					1							
Congenital malformations (stillbirths not included)	150	1		1									
Congenital debility, icterus and sclerema	151	30	3										
Other diseases peculiar to early infancy	152	1											
Senility	154												
Suicide by poison	155							1				1	
Suicide by asphyxia	156										1	1	3
Suicide by hanging or strangulation	157					1					2		
Suicide by drowning	158												
Suicide by firearms	159								1	2	1	3	
Suicide by jumping from a high place	161												1
Other acute poisonings	165			3									
Conflagration	166				1								
Burns (conflagration excepted)	167			1	1					1			
Absorption of deleterious gases (conflagration excepted)	168												1
Accidental drowning	169			1		1		1		2	2		2
Traumatism by fall	172				1			2	1			3	1
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175				2	3	1	2	2	4	3	2	3
Starvation	177											1	
Effects of heat	179								1				
Electricity (lightning excepted)	181							1					
Homicide by firearms	182								2	3			
Homicide by cutting or piercing instruments	183											1	
Homicide by other means	184												1
Cause of death not specified or ill-defined	189	3	9										

Total deaths, 1,140. Death-rate, 15.78.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
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...	...	...	...	...	...	...	25	24	...	49	...	...	...	...	...	...	...	...	...	...	...	...	...	49	...	...
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...	4	3	...	...	...	...	3	5	...	4	...	...	2	1	...	...	...	1	...	...	...	...	4	2	2	...
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3	2	3	1	...	...	...	8	4	...	3	...	...	5	1	2	...	...	1	...	...	...	...	6	...	6	...
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3	...	1	...	...	...	...	8	6	...	4	1	...	3	2	2	1	1	...	...	...	...	...	8	5	1	...
13	16	19	4	1	2	...	53	37	...	36	2	...	26	12	5	...	2	3	1	1	1	1	51	19	20	...
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1	...	1	1	...	1	...	2	3	...	1	...	...	3	1	...	...	...	...	...	...	...	...	1	1	3	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
...	...	...	...	...	...	...	5	...	1	4	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	1
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	5	7	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	12	...	...

TABLE 25.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR' ENDING

DEATHS IN IRVINGTON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6			2									
Whooping cough	8		2	1									
Diphtheria and croup	9			2									
Erysipelas	18												
Tuberculosis of the lungs	28			1				4	3	5	1	1	2
Abdominal tuberculosis	31												
Syphilis	37		1										
Cancer and other malignant tumors of the buccal cavity	39											1	
Cancer and other malignant tumors of the stomach, liver	40										2		1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												2
Anaemia, chlorosis	54												
Alcoholism (acute or chronic)	56												1
Locomotor ataxia	62												
Other diseases of the spinal cord	63				1								
Cerebral haemorrhage, apoplexy	64												
Epilepsy	69										1		
Chorea	72				1								
Acute endocarditis	78					1		1			2		1
Organic diseases of the heart	79		1			1		1			1		
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												1
Acute bronchitis	89		1										
Bronchopneumonia	91		1	1									
Pneumonia	92			4									
Pulmonary congestion, pulmonary apoplexy	94												
Other diseases of the mouth and annexa	99		1										
Diarrhoea and enteritis (Under 2 years)	104	2	1	1									
Diarrhoea and enteritis (2 years and over)	105				1								
Cirrhosis of the liver	113												
Other diseases of the liver	115												1
Bright's disease	120										1		
Other diseases of the urethra, urinary abscess, etc.	125									1			
Congenital debility, icterus and sclerema	151	9											
Other diseases peculiar to early infancy	152	4											
Lack of care	153		1										
Senility	154												
Suicide by poison	155											1	
Suicide by hanging or strangulation	157												
Absorption of deleterious gases (conflagration excepted)	168												1
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175				1								
Effects of heat	179						1						
Homicide by other means	184												

Total deaths, 151. Death-rate, 10.98.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2			2														2		
							2	1	1	3														3		
							1	1		2														2		
		1						1		1															1	
1		1	2				9	12		16		1	3				1						14	4	3	
1							1			1													1			
							1			1														1		
							1			1													1			
1	1	1					3	3		1			4						1				5	1		
		1	1	1			1	2		3													1		2	
		2						4		1	1		2										3		1	
		1						1		1															1	
							1			1													1			
1								1					1										1			
							1			1														1		
1	1	1	1	2	1		4	3		2	2		3										3	1	3	
	1							2	1	2													1	1		
								1		1														1		
1		1		1			3	5		3	1		1	1				1				1	5	1	2	
	2	3	7	1			5	12	1	10			5	1		1							9	2	6	
	1						1						1										1			
		1	1	1			3	1		3			1										3		1	
1			1				2	1		1			1									1	2	1		
				1				3		2			1											2	1	
1	1		3	2			5	6		8			2		1								3	4	4	
			1					1					1												1	
							1			1														1		
							3	1		4														4		
1							1	1		1			1										1	1		
		1					1						1										1			
		1					2			1			1										1		1	
3	1	1	4	1			5	6		5			4				1		1				6	1	4	
							1		1	1													1			
							4	5		9														9		
							3	1		4														4		
							1			1														1		
					1		1			1															1	
							1						1										1			
		1					1						1										1			
							1			1														1		
				1				1					1										1			
								1		1														1		
							1			1														1		
1								1					1												1	

TABLE 25.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN IRVINGTON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6	..	..	2	..	..	..	..	..	..	..	..	..
Whooping cough	8	..	2	1	..	..	..	..	..	..	..	..	..
Diphtheria and croup	9	..	..	2	..	..	..	..	..	..	..	..	..
Erysipelas	18	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	..	1	..	..	..	4	3	5	1	1	2
Abdominal tuberculosis	31	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	37	..	1	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the buccal cavity	39	..	..	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the stomach, liver	40	..	..	..	..	..	..	..	..	..	2	..	1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the female genital organs	42	..	..	..	..	..	..	..	..	..	..	..	2
Anaemia, chlorosis	54	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism (acute or chronic)	56	..	..	..	..	..	..	..	..	..	..	..	1
Locomotor ataxia	62	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the spinal cord	63	..	..	..	1	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	69	..	..	..	..	..	..	..	..	..	1	..	..
Chorea	72	..	..	..	1	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	..	..	..	1	..	1	..	..	2	..	1
Organic diseases of the heart	79	..	1	..	..	1	..	1	..	..	1	..	..
Angina pectoris	80	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the arteries, atheroma aneurysm, etc.	81	..	..	..	..	..	..	..	..	..	..	..	1
Acute bronchitis	89	..	1	..	..	..	..	..	..	..	..	..	..
Bronchopneumonia	91	..	1	1	..	..	..	..	..	..	..	..	..
Pneumonia	92	..	..	4	..	..	..	..	..	..	..	..	..
Pulmonary congestion, pulmonary apoplexy	94	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the mouth and annexa	99	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	2	1	1	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	..	..	1	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the liver	115	..	..	..	..	..	..	..	..	..	..	..	1
Bright's disease	120	..	..	..	..	..	..	..	..	..	1	..	..
Other diseases of the urethra, urinary abscess, etc.	125	..	..	..	..	..	..	..	..	1	..	..	..
Congenital debility, icterus and sclerema	151	9	..	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	4	..	..	..	..	..	..	..	..	..	..	..
Lack of care	153	..	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	..	..	..	..	..	..	..	..	..	1	..
Suicide by hanging or strangulation	157	..	..	..	..	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	..	..	..	..	..	..	..	..	..	..	1
Traumatism by fall	172	..	..	..	..	..	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	..	..	1	..	..	..	..	..	..	..	..
Effects of heat	179	..	..	..	..	..	1	..	..	..	..	..	..
Homicide by other means	184	..	..	..	..	..	..	..	..	..	..	..	..

Total deaths, 151. Death-rate, 10.98.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2			2														2		
							2	1	1	3														3		
							1	1		2														2		
		1						1		1															1	
1		1	2				9	12		16		1	3				1						14	4	3	
1							1			1													1			
							1			1														1		
							1			1													1			
1	1	1					3	3		1			4						1				5	1		
		1	1	1			1	2		3													1		2	
		2						4		1	1		2										3		1	
		1						1		1															1	
							1			1													1			
1								1					1										1			
							1			1														1		
1	1	1	1	2	1		4	3		2	2		3										3	1	3	
	1							2	1	2													1	1		
								1		1														1		
1		1		1			3	5		3	1		1	1				1				1	5	1	2	
	2	3	7	1			5	12	1	10			5	1		1							9	2	6	
	1						1						1										1			
		1	1	1			3	1		3			1										3		1	
1			1				2	1		1			1									1	2	1		
				1				3		2			1											2	1	
1	1		3	2			5	6		8			2		1								3	4	4	
			1					1					1												1	
							1			1														1		
							3	1		4														4		
1							1	1		1			1										1	1		
		1					1						1										1			
		1					2			1			1										1		1	
3	1	1	4	1			5	6		5			4				1		1				6	1	4	
							1		1	1													1			
							4	5		9														9		
							3	1		4														4		
							1			1														1		
					1		1			1															1	
							1						1										1			
		1					1						1										1			
							1			1														1		
				1				1					1										1			
								1		1														1		
							1			1														1		
1								1					1												1	

TABLE 26.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN JERSEY CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			3	1	1	4	4	3	1			3
Malaria	4												
Measles	6		4	11	1								
Scarlet fever	7			14	5	1	3	1	2				
Whooping cough	8	1	15	20	1								
Diphtheria and croup	9		1	27	3		1				1		
Including: Croup	9A		1	6									
Influenza	10												
Erysipelas	18	2	4		1				1		1	4	2
Purulent infection and septichaemia	20									1			1
Tetanus	24	2											
Tuberculosis of the lungs	28		2	6	2	6	32	53	72	80	69	67	42
Acute miliary tuberculosis	29							4	1	1		1	3
Tuberculous meningitis	30		8	10	6	2	2	1		1			
Abdominal tuberculosis	31				2					3		3	
Pott's disease	32												
White swellings	33							1					
Tuberculosis of other organs	34				1				2				
Disseminated tuberculosis	35								1		1		1
Rickets	36		1	1									
Syphilis	37	2	1					1		1	4		2
Cancer and other malignant tumors of the buccal cavity	39												4
Cancer and other malignant tumors of the stomach, liver	40			1					3	1	5	6	8
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41										1	1	1
Cancer and other malignant tumors of the female genital organs	42									3	1	4	3
Cancer and other malignant tumors of the breast	43									1	1	2	3
Cancer and other malignant tumors of the skin	44										1	1	
Cancer and other malignant tumors of other organs or of organs not specified	45			1			2			1	1	2	1
Other tumors (tumors of the female genital organs excepted)	46									1			
Acute articular rheumatism	47				1	2					1	1	2
Chronic rheumatism and gout	48									1			
Diabetes	50					3				1		1	1
Exophthalmic goitre	51							1					
Leuchaemia	53						1	2		1			
Anaemia, chlorosis	54		1	1	1					1		1	
Other general diseases	55	2	1										
Alcoholism (acute or chronic)	56							1		1	4	6	6
Chronic lead poisoning	57												1
Other chronic poisonings	59												1
Encephalitis	60										1	1	
Simple meningitis	61	2	14	12	3		2	1		2	1		1
Including: Cerebrospinal fever	61A		3	5	4	1	1						1
Locomotor ataxia	62										2		1
Other diseases of the spinal cord	63		1	1						1	1		
Cerebral haemorrhage, apoplexy	64	3		1		1	1		2	2	5	11	14
Softening of the brain	65												
Paralysis without specified cause	66											1	3
General paralysis of the insane	67												
Other forms of mental alienation	68												1
Epilepsy	69			1					1				
Convulsions of infants	71	9	20	5									
Chorea	72												
Neuralgia and neuritis	73												

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
2							13	9		10	2		1	1	1		3	4					9	11	2	
		1		1			1	1					1	1									1		1	
							5	11		16														16		
							9	17		24								1	1				2	24		
							22	15	5	37														37		
							16	17		31	1		1										1	32		
							4	3		7														7		
1								1						1											1	
1		1	1	1			12	7	1	12	3		1	2			1						6	10	3	
							2							1					1				2			
	1						3			2			1											2	1	
27	12	13	6	1			310	180	18	335	6	1	31	49	18	4	5	10	15		8	8	240	205	45	
							8	2		9									1				4	6		
							18	12		27				1	2								1	29		
							4	4		4	2								1			1	6	2		
1							1			1														1		
							1						1											1		
							1	2	1	3													1	2		
							2	1		2					1								3			
							1	1		2														2		
		1					6	6		8	1		1			1				1			8	4		
	1	2					7			2				3	1							1	5		2	
12	8	27	16	7			37	57	1	31	4		29	16	3	2	1	2	3		2	1	49	6	39	
2	4	8	4				7	14		12	2		2	5									10	2	9	
5	2	4	2	1				25	1	11	1		5	5		1		1	1				18		7	
5	1	3	1				1	16	1	6			3	4			2	1				1	8	3	6	
		2	1				2	3		3			1	1										2	3	
2	2	4	1	1			12	6		10	1		2		3				1		1		10	5	3	
							1														1		1			
		3		1			5	6		5	1		1	3			1						4	4	3	
1		1						3		1			1	1									2		1	
4	7	9	3				10	19		15	2	2	3	5							2		16	4	9	
								1		1															1	
							2	2		3												1		4		
2							3	4		7													1	5	1	
							2	1		3														3		
3	2	1	1				23	2	1	6	1		1	9		1			1	1		5	7	11	5	2
							1			1													1			
								1		1														1		
							2							1	1								2			
2	1			1			23	19	1	37	2		1				1			1			7	35		
							11	4		13				1					1				1	14		
		2	1				5	1		3			1	1			1						6			
1		1	2				4	4		4	1			1			1		1				3	3	2	
29	27	61	60	22	4		128	115	3	105	9	1	45	62	6	2	3	1	1	1	3	4	120	23	97	3
		1		1			2			1				1									2			
1	3	6	6	4			9	15		5	3		6	7	1		1				1		10	2	12	
			1					1					1												1	
1	1	1	4				2	6		2			1	1	2				2				5		3	
	1	1					1	3		3												1		3	1	
							17	17	2	33												1		31		
	1							1						1											1	
		1					1			1													1			

TABLE 26.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES.

THE YEAR ENDING

DEATHS IN JERSEY CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Other diseases of the nervous system	74					1				1			
Other diseases of the eyes and their annexa	75										1		
Diseases of the ears	76												
Pericarditis	77						1					1	1
Acute endocarditis	78	2	1	4	3	10	6	4	7	5	8	10	4
Organic diseases of the heart	79	6	3	1	5	3	6	4	8	12	22	21	10
Angina pectoris	80											1	
Diseases of the arteries, atheroma aneurysm, etc.	81							1		2	1	1	
Embolism and thrombosis	82									1			
Diseases of the lymphatic system (lymphangitis, etc)	84		1	1									
Diseases of the larynx	87			4	1								1
Acute bronchitis	89	10	9	3				1				1	
Chronic bronchitis	90		1									1	
Bronchopneumonia	91	8	77	46	3	1	1		1	3	1	3	2
Pneumonia	92	12	44	44	3	2	4	6	17	20	24	26	23
Pleurisy	93	1	2	2	1	1		1		2	1	1	1
Pulmonary congestion, pulmonary apoplexy	94	1		1		1	1	2		1	1	3	2
Gangrene of the lung	95												
Asthma	96										1	1	2
Pulmonary emphysema	97										2		
Other diseases of the respiratory system (tuberculosis excepted)	98							1	1	1		1	
Other diseases of the mouth and annexa	99		3										
Diseases of the pharynx	100			1						1			1
Diseases of the oesophagus	101												
Ulcer of the stomach	102							2	1	1	1	2	3
Other diseases of the stomach (cancer excepted)	103	7	10	2	2		1				1	3	3
Diarrhoea and enteritis (Under 2 years)	104	22	183	42									
Diarrhoea and enteritis (2 years and over)	105			11	6	2			1	2	2	2	3
Appendicitis and typhlitis	108				3	5	5	5	1	2	2		2
Hernias, intestinal obstructions	109	1	5	2			1	2				3	1
Other diseases of the intestines	110	1	1	1				1			2		
Cirrhosis of the liver	113						1	1	1	4	4	5	9
Other diseases of the liver	115		1								2	2	
Simple peritonitis (nonpuerperal)	117								1			1	
Other diseases of the digestive system (cancer and tuberculosis excepted)	118								1	2			1
Acute nephritis	119					2		1	7	6	2	4	6
Bright's disease	120		1	1	3		1	4	6	17	31	21	31
Chyluria	121											1	
Other diseases of the kidneys and annexa	122		1									2	2
Calculi of the urinary passages	123										1		1
Diseases of the bladder	124												
Other diseases of the urethra, urinary abscess, etc.	125												
Diseases of the prostate	126											1	
Uterine tumor (noncancerous)	129										1		
Other diseases of the uterus	130								1				1
Cysts and other tumors of the ovary	131							1		1			
Salpingitis and other diseases of the female genital organs	132				1				1	2	1	1	
Accidents of pregnancy	134								1	2	2		
Puerperal haemorrhage	135							2	3	1	1		
Other accidents of labor	136							3	2	1	1	2	
Puerperal septichaemia	137							4	4	2	1		
Puerperal albuminuria and convulsions	138							4	5	4	2	2	
Puerperal phlegmasia alba dolens, embolus, sudden death	139							1			1		
Gangrene	142												

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	..	..	..	..	..	..	..	3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..
..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..
..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
1	1	..	..	1	..	..	4	2	..	3	..	..	..	2	..	..	..	..	..	..	..	1	1	3	2	..
9	16	37	33	14	4	..	87	90	8	96	3	..	19	40	7	2	1	..	7	..	..	2	61	55	61	..
26	23	37	28	6	1	..	121	101	12	113	6	4	19	44	8	4	3	1	5	..	5	10	98	55	64	5
2	..	2	3	2	..	..	5	5	..	7	..	..	1	2	..	..	..	..	..	..	..	..	4	..	6	..
1	10	19	14	7	4	..	26	34	1	19	2	..	12	23	1	..	1	..	..	..	1	1	17	8	35	..
1	..	1	..	..	..	..	2	1	..	1	..	..	..	1	..	..	..	..	..	..	..	1	2	1	..	..
..	..	..	..	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
2	..	..	..	..	..	..	4	4	..	5	..	..	..	2	..	..	..	..	..	..	..	1	1	6	1	..
..	..	2	2	2	1	..	17	14	..	23	..	1	3	4	..	..	..	..	..	..	..	..	2	25	4	..
..	1	3	5	4	..	..	8	7	..	5	..	..	5	3	..	..	..	..	1	..	1	..	2	1	12	..
4	3	7	7	2	2	..	96	75	3	140	2	..	7	13	2	..	2	..	2	..	1	2	22	136	13	..
11	12	27	29	12	..	..	181	135	11	201	7	1	26	42	12	2	5	2	9	..	3	6	99	154	60	3
1	..	3	2	1	..	..	16	4	2	15	..	..	2	1	1	1	..	..	..	..	..	..	7	9	4	..
3	3	5	5	2	1	..	19	13	..	17	1	1	3	6	..	..	..	..	..	..	..	4	11	10	11	..
..	..	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..
2	4	4	5	..	..	..	13	6	1	8	1	..	2	6	1	..	..	..	..	..	1	..	13	3	3	..
..	..	..	..	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
..	..	1	..	..	..	..	2	3	..	2	..	..	..	1	..	..	..	..	2	..	..	..	3	1	1	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	2	3	..	3	..	..	1	..	..	..	..	..	..	..	..	1	2	3	..	..
..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
1	..	2	2	..	..	..	12	3	1	5	..	1	3	6	..	..	..	..	..	..	..	..	5	5	5	..
1	1	1	2	1	..	..	18	17	1	28	1	..	1	2	..	1	1	..	..	..	1	..	8	24	3	..
..	..	..	..	..	..	..	142	105	5	243	..	..	..	..	..	..	1	..	..	..	..	3	..	247	..	..
3	2	5	12	7	..	..	23	35	..	37	3	..	6	9	..	1	..	1	..	1	..	..	18	24	16	..
3	1	1	..	..	..	..	18	12	..	21	1	..	1	1	1	..	2	..	3	..	..	..	10	20	..	..
2	4	8	4	1	..	..	16	18	..	16	1	1	4	5	1	..	..	1	3	1	..	1	12	12	10	..
..	..	1	2	..	..	..	6	3	1	6	..	..	..	2	..	..	1	..	..	..	..	..	5	3	1	..
8	5	11	2	..	..	..	28	23	3	18	1	..	10	15	1	..	2	1	1	..	..	2	30	9	12	..
..	1	5	1	..	..	..	4	8	..	5	1	..	4	1	..	1	..	..	..	..	..	..	4	3	5	..
..	..	1	1	..	..	..	1	3	1	1	..	..	2	..	1	..	..	..	..	..	..	..	2	..	2	..
..	..	..	..	..	..	..	2	2	..	4	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..
3	2	6	2	..	..	..	19	22	2	23	1	..	5	4	2	..	..	..	3	..	2	1	31	7	3	..
35	29	68	29	10	1	..	168	120	7	143	8	4	47	53	5	4	4	2	5	..	5	8	138	61	87	2
..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..
..	1	..	..	..	..	..	3	3	..	3	1	..	2	..	..	..	..	..	..	..	..	..	3	2	1	..
1	1	2	..	1	..	..	4	3	..	3	1	..	2	1	..	..	..	..	..	..	..	..	6	..	1	..
1	..	2	1	..	..	..	4	..	..	1	1	..	1	..	..	..	..	..	1	..	..	..	3	..	1	..
..	..	1	1	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
..	1	2	1	3	..	..	8	..	..	..	..	..	3	3	1	..	..	..	1	..	..	..	2	1	5	..
..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
1	..	..	..	..	..	..	..	3	..	..	..	..	1	..	1	..	..	..	1	..	..	..	2	..	1	..
..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	..	..
..	..	..	..	..	..	..	..	6	..	4	..	..	1	..	..	..	..	..	1	..	..	..	5	1	..	..
..	..	..	..	..	..	..	..	5	..	4	..	..	..	..	..	..	1	..	..	..	..	..	5	..	..	..
..	..	..	..	..	..	..	..	7	..	5	..	..	..	..	2	..	..	..	..	..	..	..	7	..	..	..
..	..	..	..	..	..	..	..	9	1	3	..	..	1	2	..	..	2	..	1	..	..	..	9	..	..	..
..	..	..	..	..	..	..	..	11	..	4	..	..	1	2	2	..	2	..	..	..	..	..	10	1	..	..
..	..	..	..	..	..	..	..	16	..	12	..	..	..	..	1	..	..	2	1	..	..	..	16	..	..	..
..	..	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
..	1	2	1	..	..	..	2	2	..	..	..	..	2	2	..	..	..	..	..	..	..	..	3	..	1	..

TABLE 26.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN JERSEY CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Acute abscess	144	..	1	..	..	..	1	..	..	..	..	..	2
Other diseases of the skin and annexa	145	1	..	1	..	..	..	..	..	..	..	..	..
Diseases of the bones (tuberculosis excepted)	146	..	..	..	..	1	..	..	..	..	..	1	3
Diseases of the bones (tuberculosis and rheumatism excepted)	147	..	..	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	3	2	1	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	170	10	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	22	7	..	..	..	..	..	..	..	..	..	..
Lack of care	153	..	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	..	..	..	..	1	..	3	1	1	2	..
Suicide by asphyxia	156	..	..	..	..	..	1	1	..	..	1	..	1
Suicide by hanging or strangulation	157	..	..	..	..	..	..	..	1	..	..	..	2
Suicide by drowning	158	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by firearms	159	..	..	..	..	..	1	..	..	3	3	1	1
Suicide by cutting or piercing instruments	160	..	..	..	..	..	..	..	..	..	..	..	1
Other acute poisonings	165	..	..	1	..	..	..	..	..	..	1	..	..
Conflagration	166	..	..	1	1	..	1	1	..	..	..	..	..
Burns (conflagration excepted)	167	..	2	16	1	1	..	1	2	1	1	..	3
Absorption of deleterious gases (conflagration excepted)	168	..	..	..	..	..	..	..	3	3	5	2	1
Accidental drowning	169	..	..	..	..	4	2	2	9	3	5	4	1
Traumatism by fall	172	..	..	3	2	3	1	..	3	7	2	3	3
Traumatism by machines	174	..	..	..	..	..	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	..	2	8	3	3	15	7	12	8	3	6
Excessive cold	178	..	..	..	..	..	..	..	..	..	1	..	..
Effects of heat	179	1	..	1	..	..	..	..	..	..	1	..	..
Electricity (lightning excepted	181	..	..	..	..	..	..	1	..	..	2	..	..
Homicide by firearms	182	..	..	..	..	..	..	1	..	..	..	..	..
Homicide by cutting or piercing instruments	183	..	..	..	..	..	..	..	..	..	..	..	..
Fractures (cause not specified)	185	..	..	..	..	..	..	..	1	..	..	..	..
Cause of death not specified or ill-defined	189	10	59	7	..	1	..	..	..	..	..	..	..

Total deaths, 4,028. Death-rate, 14.29.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		2					5	1		4			1			1							3	3		
	2	3	1				6	2		5			1		1							1	4	2	2	
		1					6			3			1	1			1						4	1	1	
			1					1										1							1	
							1	5		6														6		
							95	85	6	179									1					180		
							17	12		29														29		
							1			1														1		
		1	5	8	3		5	12		4			11	1		1							1		16	
	1						6	3		6	1		1							1			4	3	2	
1	1	2					6	2		2	1		1								2	2	3	2	2	1
	1	1					4	1		2			2	1									4		1	
	1							1						1											1	
	1		1				11			2		1	3	1	1			1	2				6	3	2	
							1										1						1			
	1	1					2	2		1	1		2										3	1		
	1	1	2				3	5	1	5			1	1			1						3	4	1	
1		2	1				15	17		21	1		3	1	4				2				9	21	2	
	1	3	2				15	5	1	8		1	5	2				2	1			1	8	7	4	1
1	1						31	1	1	10			1	2		1	1	8	2	2	1	4	7	19	6	
5	2	6	3	1	1		35	10	1	24	3		2	9			2				2	2	18	15	10	2
1							1			1														1		
4	3	5	2				79	3		36			2	12	8		7	1	12			4	29	44	5	4
				1			1													1				1		
1	1						5			4				1									3	2		
							3			2			1										2	1		
							1		1	1														1		
	1							1	1	1													1			
							1							1									1			
							43	34	4	77														77		

TABLE 27.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN KEARNY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6	..	....	2	..	..	..	..	..	..	..	..	..
Scarlet fever	7	..	....	1	..	..	..	..	..	..	..	..	..
Diphtheria and croup	9	..	....	1	..	..	..	..	..	..	..	..	..
Influenza	10	..	....	..	..	..	..	..	..	..	..	..	..
Dysentery	14	..	....	..	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	1	..	..	..	..	1	2	2	3	1	2
Acute miliary tuberculosis	29	..	....	..	..	..	..	..	..	1	..	..	..
Tuberculous meningitis	30	..	3	..	..	..	..	1	..	..	1	..	..
Abdominal tuberculosis	31	..	....	1	..	..	..	..	..	..	..	..	..
Tuberculosis of other organs	34	..	....	..	1	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the buccal cavity	39	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the stomach, liver	40	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the female genital organs	42	..	....	..	..	..	..	..	..	..	1	..	2
Cancer and other malignant tumors of other organs or of organs not specified	45	..	....	..	..	..	..	..	..	..	..	..	..
Acute articular rheumatism	47	..	....	..	..	..	..	..	..	..	..	..	..
Diabetes	50	..	....	..	..	..	..	..	..	..	..	..	..
Anaemia, chlorosis	54	..	....	..	..	..	..	..	..	..	..	..	..
Other general diseases	55	..	....	..	..	..	..	..	..	..	..	..	..
Alcoholism (acute or chronic	56	..	....	..	..	..	..	..	..	..	..	..	..
Encephalitis	60	..	....	1	..	..	..	..	..	..	..	..	..
Simple meningitis	61	..	1	1	..	..	..	1	..	..	..	..	..
Locomotor ataxia	62	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the spinal cord	63	..	....	..	..	..	..	..	..	..	..	..	..
Cerebral hæmorrhage, apoplexy	64	1	....	..	..	..	..	..	..	1	..	..	..
Softening of the brain	65	..	....	..	..	..	..	..	..	..	..	..	2
Paralysis without specified cause	66	..	....	..	..	..	..	..	..	..	..	..	..
Other forms of mental alienation	68	..	....	..	..	..	..	..	..	..	..	..	..
Epilepsy	69	..	....	..	..	..	..	..	..	..	1	..	..
Convulsions of infants	71	..	3	..	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	....	..	1	..	..	..	..	1	1	1	..
Organic diseases of the heart	79	..	....	..	..	1	..	..	..	..	..	1	1
Angina pectoris	80	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the arteries, atheroma aneurysm,, etc.	81	..	....	..	..	..	..	..	..	..	1	..	2
Chronic bronchitis	90	..	....	..	..	..	..	..	..	..	..	..	..
Bronchopneumonia	91	..	5	2	..	..	..	..	..	..	..	..	..
Pneumonia	92	..	1	1	..	..	..	..	1	..	..	..	..
Pleurisy	93	..	....	..	..	..	..	..	..	..	..	..	..
Pulmonary congestion, pulmonary apoplexy	94	..	....	..	..	..	..	..	..	..	1	..	..
Other diseases of the respiratory system (tuberculosis excepted)	98	..	....	..	..	..	..	..	..	..	..	..	..
Ulcer of the stomach	102	..	....	..	..	..	..	..	..	..	1	..	..
Other diseases of the stomach (cancer excepted)	103	..	....	1	..	..	1	1	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	1	7	3	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	....	1	..	..	..	..	..	..	..	..	..
Appendicitis and typhlitis	108	..	....	..	..	..	..	1	..	..	..	1	..
Hernias, intestinal obstructions	109	..	1	..	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	..	..	..	..
Acute nephritis	119	..	1	..	..	..	..	..	..	..	..	..	1

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1	1		2														2		
							1			1														1		
								1		1														1		
				1			1			1															1	
				1			1			1															1	
3		5	2				16	6	1	12	2		1	5	1							1	13	6	3	
							1			1														1		
							2	3		5													2	3		
								1		1														1		
								1										1						1		
		1					1													1				1		
			1				1			1															1	
	1		1					2		2															2	
								3		2					1								3			
		1		1			2			2													2			
		2					1	1			1					1									2	
		3					1	2		1				1		1								3		
		1						1			1												1			
	1						1			1													1			
			1				1							1											1	
							1			1														1		
		1	1				2	3		5													2	3		
			2	1			3			3													1		2	
			2	1			3			3															3	
1	1	7	6	1			11	9		8	2		4	2		3		1					10	6	4	
			2	1			3			2												1	1		2	
		4	5	2			11			9	1							1					5	1	5	
		1	1	3			5			4		1											2		3	
							1			1														1		
							3			3														3		
		1	3				4	5		5			1	1								1	3	2	4	
	2	4	5	1	2		11	7		9	2		2	2	1	1			1				11	1	5	1
		4					3	1		2	1		1										3		1	
		2	2	1			3	3		5				1									1	2	3	
			1	1			1	1		1				1											2	
1			1				7	2		6						2		1					2	6	1	
1	3	3	5	3			10	8	1	12			1	3		2							6	4	8	
			2				2			1			1												2	
		2	4	1			7	1		4	1		1	1		1							1		7	
			1				1			1														1		
								1		1													1			
								3		3														3		
							8	3		11														11		
1		2	2	1			4	3		3			1	2		1							4	1	2	
							2			2													1	1		
			1				2			2														1	1	
			1				1			1															1	
		1					3			3														1	2	

TABLE 27.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,

THE YEAR ENDING

DEATHS IN KEARNY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Bright's disease	120	..	....	..	..	..	..	..	..	..	..	2	1
Diseases of the bladder	124	..	....	..	..	..	..	..	..	..	..	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	..	..	..	1	1	..	..
Gangrene	142	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the skin and annexa	145	..	1	..	..	..	..	..	..	..	..	..	..
Diseases of the bones (tuberculosis and rheumatism excepted)	147	..	....	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	1	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	11	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	..	..	1	..	..	1	..
Accidental drowning	169	..	....	..	..	..	1	..	..	..	1	..	..
Traumatism by fall	172	..	....	..	..	..	..	..	..	..	..	1	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	..	..	..	1	2	1	..	..	..

Total deaths, 270. Death-rate, 13.05.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
3	..	3	2	1	...	...	8	4	...	6	2	..	..	3	..	..	..	1	..	..	..	..	10	...	2	...
..	..	..	1	1	...	...	2	...	...	2	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1	...
..	..	..	1	..	...	...	...	3	...	...	..	..	..	..	..	3	..	..	..	..	..	..	3	...	...	...
..	..	..	..	1	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	...	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	1	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	6	6	...	12	..	..	..	..	..	..	..	..	..	..	..	..	...	12	...	...
..	..	2	4	3	...	...	5	4	...	1	2	..	1	5	..	..	..	..	..	..	..	..	2	1	6	...
..	..	..	..	..	...	...	2	...	...	1	..	..	..	1	..	..	..	..	..	..	..	..	2	...	...	...
..	..	..	1	..	...	...	3	...	1	2	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1	...
..	..	..	1	..	...	...	2	...	...	2	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1	...
2	..	..	..	..	...	...	6	...	...	2	..	..	..	..	1	..	..	..	1	..	..	2	2	1	1	2

TABLE 28.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN LAMBERTVILLE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Tetanus	24	1											
Tuberculosis of the lungs	28						1		1	1	1	1	
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												1
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												
Including: Cerebrospinal fever	61A					1							
Other diseases of the spinal cord	63												
Cerebral haemorrhage, apoplexy	64												
Neuralgia and neuritis	73							1					
Pericarditis	77										1		
Acute endocarditis	78												
Organic diseases of the heart	79						1						1
Disease of the arteries, atheroma, aneurysm, etc.	81												
Acute bronchitis	89		1										
Bronchopneumonia	91												
Pneumonia	92												
Asthma	96												
Other diseases of the mouth and annexa	99	1											
Cirrhosis of the liver	113												
Other diseases of the digestive system (cancer and tuberculosis excepted)	118												
Acute nephritis	119												
Bright's disease	120									1			
Gangrene	142												
Congenital debility, icterus and sclerema	151	2											
Other diseases peculiar to early infancy	152	2											
Senility	154												
Traumatism by fall	172												
Traumatism in mines and quarries	173								1				
Cause of death not specified or ill-defined	189		4										

Total deaths, 70. Death-rate, 15.51.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1														1		
							2	3		5													3	2		
	1		1				1	2		2				1									2		1	
		1						1		1														1		
1								1		1													1			
		1					1			1													1			
		1						1						1											1	
							1			1														1		
			3					3		2				1											3	
1		2	5	2			5	5		9												1	6		4	
							1			1														1		
								1		1													1			
			1	1				2						2											2	
	1	4	3	1			6	5		8				2	1								6	2	3	
			1					1		1													1			
				1			1	1		2														1	1	
				1				1						1											1	
		2					1	1		2													1		1	
1								1						1									1			
							1			1														1		
			1				1			1															1	
			1					1		1															1	
		1					1			1													1			
		1		1			1	2		3													2		1	
			1					1	1	1															1	
							1	1		2														2		
							1	1		2														2		
				1				1						1											1	
		2	1				2	1		1				2									2		1	
							1								1									1		
								4		4														4		

TABLE 29.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,

THE YEAR ENDING

DEATHS IN LONG BRANCH.		AGE PERIODS.											
		Under one month.	Under 1 year, "not Including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			1		2	3		1	2	3		
Measles	6			1									
Whooping cough	8			1									
Diphtheria and croup	9				1	1							
Influenza	10												
Tetanus	24												
Tuberculosis of the lungs	28		1	1		1	1	4	2	5	2	3	
Acute miliary tuberculosis	29					1	1					1	
Abdominal tuberculosis	31									1		1	
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40										1	2	
Cancer and other malignant tumors of the female genital organs	42												1
Cancer and other malignant tumors of the breast	43									1			
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45					1							1
Acute articular rheumatism	47										1		
Diabetes	50											1	
Anaemia, chlorosis	54		1										
Other general diseases	55												
Alcoholism (acute or chronic)	56												
Chronic lead poisoning	57												
Encephalitis	60			1									
Simple meningitis	61			1									
Other diseases of the spinal cord	63				1								
Cerebral haemorrhage, apoplexy	64												
Softening of the brain	65												
Paralysis without specified cause	66							1					
Other forms of mental alienation	68							1					
Epilepsy	69												1
Convulsions of infants	71		1										
Neuralgia and neuritis	73												
Other diseases of the nervous system	74												
Pericarditis	77											1	
Acute endocarditis	78					1	1					3	1
Organic diseases of the heart	79							1	1	1		1	
Angina pectoris	80								1			1	
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89												
Bronchopneumonia	91		1	1					1		1		
Pneumonia	92		1	1						1	1	1	2
Pleurisy	93		1										
Pulmonary congestion, pulmonary apoplexy	94												
Asthma	96												
Ulcer of the stomach	102												
Other diseases of the stomach (cancer excepted)	103			2								1	
Diarrhoea and enteritis (Under 2 years)	104		11										
Diarrhoea and enteritis (2 years and over)	105										1		
Appendicitis and typhlitis	108						4	1	2		2	1	1
Hernias, intestinal obstructions	109		1								1		

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
	1	1					8	6	7	11			1		1							1	5	8	1	
								1		1														1		
							1			1														1		
								2		2														2		
		1	2				2	1		2		1											2		1	
1							1							1										1		
							12	8	6	15				1	1							3	5	13	2	
		1					3	1	2	3					1								2	2		
							1	1		2													1		1	
	1	1	1				3		1	3														1	2	
2	2	4					5	6	2	8	1							1	1				8	1	2	
								1		1													1			
			1					2		2														1	1	
			1				1			1													1			
							1	1		1									1					2		
							1		1	1													1			
				1				2		2													1		1	
			1				2			2													1	1		
		1						1		1															1	
	1	1					2			1					1								2			
		1					1					1													1	
							1			1														1		
								1		1														1		
			1				2			2													1	1		
1	1	5	10	3			10	10	2	16	1			2								1	6	1	13	
		1						1		1													1			
		3	3	1			5	3		7				1									4	1	3	
								1	1	1													1			
				1				2		2														1	1	
							1			1														1		
			1					1		1															1	
		1						1		1															1	
	2						1	2	1	3													3			
		5	3	1			4	11	4	10			1	2	1							1	6	3	6	
2	1	4	4	1			9	7	1	11	2		1		1							1	4	3	9	
2				1			5			5													5			
1			1	1				3		2				1									1		2	
		1						1	1													1			1	
		1		1			3	3	2	6														4	2	
	2	2	2	1			7	7	2	8	1			2	2	1							5	5	4	
							1			1														1		
		2	1				1	2		1				1								1	2		1	
			1				1			1													1			
		1					1			1													1			
	2	1					3	3	1	5				1									3	2	1	
							2	9	3	11														11		
1	1	2	3	1			4	5	1	5	1			3									4	1	4	
	1	3					10	5		13								1				1	8	7		
1	1	1	1				4	2		3	1											2	2	1	3	

TABLE 29.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN LONG BRANCH.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Other diseases of the intestines	110	..	1	..	1	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	1	..	..	..	..	..	1	1	1	..	1
Other diseases of the liver	115	..	....	..	..	..	..	..	..	..	1	..	..
Simple peritonitis (nonpuerperal)	117	..	....	..	..	..	..	..	1	..	1	..	..
Acute nephritis	119	..	....	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	1	....	..	..	1	..	..	2	1	..	2	4
Other diseases of the kidneys and annexa	122	..	....	..	..	..	..	..	..	..	..	..	..
Calculi of the urinary passages	123	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the bladder	124	..	....	..	..	..	..	..	..	..	1	..	..
Diseases of the prostate	126	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the uterus	130	..	....	..	..	..	..	..	..	..	1	..	..
Salpingitis and other diseases of the female genital organs	132	..	....	..	..	..	..	1	..	1	1	..	..
Puerperal haemorrhage	135	..	....	..	..	..	..	..	..	1	..	..	..
Other accidents of labor	136	..	....	..	..	..	..	..	..	..	1	1	..
Puerperal septichaemia	137	..	....	..	..	..	1	1	..	..	1	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	..	..	1	..	..	..	..
Other diseases of the skin and annexa	145	..	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	13	1	..	..	..	..	..	..	..	..	..	..
Lack of care	153	1	....	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	..	1	..	..	..	..
Suicide by firearms	159	..	....	..	..	..	..	2	..	..	..	..	..
Burns (conflagration excepted)	167	..	....	..	..	..	..	..	..	1	..	..	..
Accidental drowning	169	..	....	..	..	..	..	..	1	..	1	..	..
Traumatism by firearms	170	..	....	..	..	..	1	..	..	..	..	..	..
Traumatism by fall	172	..	....	..	1	1	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	1	..	..	2	1	1	..	..	1	1
Homicide by firearms	182	..	....	..	..	..	..	1	..	..	..	..	..
Homicide by other means	184	..	1	..	..	..	..	..	..	..	..	..	..
Fractures (cause not specified)	185	..	....	1	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	2	..	..	..	..	..	..	..	..	..	..

Total deaths, 335. Death-rate, 24.37.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2			2														2		
		1					5	1	3	3				1								2	5	1		
							1												1							
	1						1	2		2							1						3			
		1					1								1										1	
3	5	6	2	1			18	10	7	18			2	2			1		1			4	15	10	3	
		1						1		1													1			
			1					1							1										1	
			1				2		1												1	1	1		1	
			1				1											1					1			
								1	1	1													1			
								3	1	1												2	3			
								1		1													1			
								2	1	2													2			
								3	1	3													3			
								1									1						1			
		1		1				2		1			1										1	1		
							6	8	2	14														14		
							1			1														1		
			1					1				1											1			
							1							1										1		
							2			1					1									2		
				1			1	1		2													1		1	
							2											1				1	1			1
							1			1														1		
1				1			3	3		6													1	2	3	
			1				7	1	1	7					1								5		3	
								1		1													1			
1							2								1							1	1	1		
							1			1														1		
							2			2														2		

TABLE 30.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,
THE YEAR ENDING

DEATHS IN MILLVILLE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1								2				
Whooping cough	8		5	5									
Diphtheria and croup	9			2									
Tuberculosis of the lungs	28						1	4	4			6	1
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Other tumors (tumors of the female genital organs excepted)	46												
Acute articular rheumatism	47												
Diabetes	50							1					
Anaemia, chlorosis	54						1						
Simple meningitis	61			1									
Locomotor ataxia	62												
Other diseases of the spinal cord	63												
Cerebral haemorrhage, apoplexy	64							1					1
Paralysis without specified cause	66											1	
Other forms of mental alienation	68												
Epilepsy	69												
Convulsions of infants	71		1										
Other diseases of the nervous system	74												
Diseases of the ears	76			1									
Acute endocarditis	78						1				1		1
Organic diseases of the heart	79											1	1
Diseases of the arteries, atheroma aneurysm, etc.	81												
Embolism and thrombosis	82												
Acute bronchitis	89		1										
Bronchopneumonia	91		1	1									
Pneumonia	92	1	2	1				1	1			1	
Pulmonary congestion, pulmonary apoplexy	94	1		1									
Ulcer of the stomach	102									1			
Other diseases of the stomach (cancer excepted)	103		3										
Diarrhoea and enteritis (Under 2 years)	104	1	8	2									
Diarrhoea and enteritis (2 years and over)	105												
Appendicitis and typhlitis	108								1				
Other diseases of the intestines	110		1										
Cirrhosis of the liver	113												
Acute nephritis	119			1									
Bright's disease	120										1		1
Calculi of the urinary passages	123												
Accidents of pregnancy	134								1				
Congenital debility, icterus and sclerema	151	10											
Other diseases peculiar to early infancy	152	1	1										
Senility	154												
Burns (conflagration excepted)	167			1									
Accidental drowning	169							1					
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175							1	1			1	
Starvation	177		1										
Effects of heat	179												
Cause of death not specified or ill-defined	189		1										

Total deaths, 169. Death-rate, 13.33.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2			2													1	1		
							6	4	1	10														10		
							2			2														2		
		3					11	8		18					1								11	7	1	
1	1		1					3		3													2		1	
			1					1		1														1		
		1						1		1															1	
		1						1		1													1			
							1			1													1			
								1		1														1		
							1			1														1		
1		1					1	1		2													1		1	
		1						1		1													1			
	1	3	3	3			6	6		12													7	1	4	
3		2	1				2	5		5				1		1							3	1	3	
		1						1		1													1			
			1					1		1															1	
							1			1														1		
		1					1			1														1		
							1			1														1		
		2					4	1		5													4	1		
	1	3	4		1		7	4		11													6	1	4	
	1						1			1													1			
			1				1			1															1	
				1			2			2														1	1	
	1	1					3	1		2			1	1									1	2	1	
	1	3		1			7	5		12													4	7	1	
			1	1			2	2		4													1	2	1	
								1		1													1			
				1			2	2		4														3	1	
							6	5	1	11														11		
				1				1		1														1		
								1		1													1			
	1						1	1		2													1	1		
	1							1		1													1			
	1	1					3			3													1	1	1	
1	2		4	1			5	5		8			2										3	1	6	
			1					1		1															1	
								1						1									1			
							5	5		10														10		
							2			2														2		
				1	1			2		2															2	
							1			1														1		
							1			1														1		
				1			1			1													1			
			1				4			3					1								1	2	1	
							1			1														1		
		1					1			1													1			
								1		1													1			

TABLE 31.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN MONTCLAIR.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1											1	1
Scarlet fever	7							1					
Whooping cough	8			1									
Tuberculosis of the lungs	28			2		1	1	3	5	2	5	3	
Acute miliary tuberculosis	29				1								
Tuberculous meningitis	30		1										
Rickets	36		1										
Syphilis	37								1				
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												1
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Other tumors (tumors of the female genital organs excepted)	46												
Diabetes	50												
Leuchaemia	53				1								
Anaemia, chlorosis	54										1	1	
Alcoholism (acute or chronic)	56												1
Encephalitis	60				1								
Other diseases of the spinal cord	63											1	
Cerebral haemorrhage, apoplexy	64										2		2
Softening of the brain	65												
Paralysis without specified cause	66												
Epilepsy	69								1				
Convulsions of infants	71	1	1										
Other diseases of the nervous system	74												1
Acute endocarditis	78			1			1			2	1		1
Organic diseases of the heart	79										3	2	1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Diseases of the lymphatic system (lymphangitis, etc.)	84									1			
Acute bronchitis	89	1										1	
Bronchopneumonia	91	1	2	2									
Pneumonia	92		3	3	1		1	1		2	1	1	1
Pleurisy	93			1									
Pulmonary congestion, pulmonary apoplexy	94											1	
Diseases of the pharynx	100				1								
Other diseases of the stomach (cancer excepted)	103	1	6										
Diarrhoea and enteritis (Under 2 years)	104	1	22	1									
Diarrhoea and enteritis (2 years and over)	105			1									
Appendicitis and typhlitis	108								1				
Hernias, intestinal obstructions	109				1						1		1
Cirrhosis of the liver	113												
Acute nephritis	119		3	1									
Bright's disease	120								2	1	2	3	
Diseases of the bladder	124												
Diseases of the prostate	126												
Other accidents of labor	136								1		1		
Puerperal albuminuria and convulsions	138						2						
Furuncle	143		1										

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		1					2	1		1			1				1							3		
							1			1														1		
								1		1														1		
	1	1	1				15	11	7	22				4									14	11	1	
							1		1	1														1		
								1		1														1		
							1			1														1		
								1		1	1													1		
			1					1		1															1	
2	2	2	1				6	1		4			1	1					1				5		2	
1	1	1	2				2	3		5													3		2	
			2					3	1	2				1									2		1	
1	1	2						4		4													2	1	1	
		1						1		1														1		
			1					1		1															1	
		1		1				2		1				1									1		1	
		1					2			2													1	1		
							1	1		2													2			
	1						1	1		1				1									2			
		1					2		1	2													1	1		
		1					1	1	1	2													1	1		
	5	2	2	2			7	8	2	7	2		2					3				1	11	1	3	
1							1											1					1			
			1				1			1													1			
							1		1	1														1		
							2			2														2		
								1		1													1			
3	2	2	5	1			11	8	4	14			4								1		11	3	5	
3	3	4	4	1			10	11	4	13	1		3	1	1	1					1		13	2	6	
				1				1			1														1	
1		1		4	3		3	6		5	2		1			1							3	1	5	
							1			1													1			
				1			2	1	1	3													2	1		
			1	1	1		3	5	1	4				1		1					1	1	1	5	2	
1	1	4	2	1			11	12	6	19	1			1	2								9	9	5	
							1			1														1		
		2					2	1		2				1									1		2	
								1	1	1														1		
	1						6	2	1	8														7	1	
							11	13	8	24														24		
	1		1					3	1	3													1	2		
	1		1				2	1		2	1												3			
							2	1		2									1				2	1		
		1	1				2			2													2			
1		1	1				4	3	2	4				1		1					1		1	5	1	
	4	9	3	1			15	10	4	16	1			4	2							2	16	3	5	1
	1						1						1										1			
1		1	1				3		2	3													2		1	
								2		1				1									2			
								2	1	2													1	1		
		1					2			1												1	1	1		

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TABLE 31—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN MONTCLAIR.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Congenital malformations (stillbirths not included)	150	1	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	19	3	2	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	..	3	..	..	..	..	..	..	..	..	..	..
Lack of care	153	..	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	1	..	..	..	..	..	1
Suicide by hanging or strangulation	157	..	....	..	..	..	..	..	..	..	..	..	1
Suicide by firearms	159	..	....	..	..	..	..	..	..	..	..	..	..
Other acute poisonings	165	..	....	..	..	..	..	..	..	..	..	..	..
Burns (conflagration excepted)	167	..	....	2	..	..	..	..	..	..	1	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	2	..	1	1	..	..	2	..	1
Homicide by firearms	182	..	....	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	4	..	..	..	..	..	..	..	..	..	..

Total deaths, 318. Death-rate, 13.46.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1														1		
							15	9	2	24														24		
							1	2	2	3														3		
								1		1														1		
			1				1				1														1	
							1	1	1	2														1		1
							1															1				1
	1						1									1							1			
	1							1			1												1			
							1	2		2				1									1	2		
1	1		1				6	4		6				1	2				1				6	4		
		1					1								1								1			
							3	1		4														4		

TABLE 32.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN MORRISTOWN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1					1	1	1				1	
Measles	6		1	3			1						
Whooping cough	8		1	1									
Diphtheria and croup	9		1	2									
Influenza	10		1										
Tetanus	24						1						
Tuberculosis of the lungs	28						2	1	2	2	3	1	
Acute miliary tuberculosis	29							1				1	
Tuberculous meningitis	30		1	2			1						
Abdominal tuberculosis	31		1										
Disseminated tuberculosis	35			1	1				1				
Rickets	36		1										
Cancer and other malignant tumors of the stomach, liver	40									1		1	3
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42											1	
Cancer and other malignant tumors of the breast	43									1			
Cancer and other malignant tumors of other organs or of organs not specified	45												
Acute articular rheumatism	47												
Diabetes	50												2
Leuchaemia	53												1
Anaemia, chlorosis	54												
Other general diseases	55	1											
Alcoholism (acute or chronic)	56										1		
Simple meningitis	61			3									
Other diseases of the spinal cord	63												
Cerebral haemorrhage, apoplexy	64									1	1	1	1
Convulsions of infants	71		2										
Other diseases of the nervous system	74												1
Acute endocarditis	78							1			1	1	
Organic diseases of the heart	79		1	1								1	1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc	81												
Embolism and thrombosis	82												
Diseases of the lymphatic system (lymphangitis, etc.)	84		1										
Haemorrhage; other diseases of the circulatory system	85							1					
Acute bronchitis	89			1									
Bronchopneumonia	91		3	1									
Pneumonia	92		2			1			1	1	1		1
Asthma	96												
Other diseases of the respiratory system (tuberculosis excepted)	98												
Ulcer of the stomach	102							1					
Other diseases of the stomach (cancer excepted)	103		1										
Diarrhoea and enteritis (Under 2 years)	104		11	5									
Diarrhoea and enteritis (2 years and over)	105			1								1	
Appendicitis and typhlitis	108					1	1	1		1			
Hernias, intestinal obstructions	109									1			

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2	2	2	4														3	1	
							3	2	1	5														5		
							1	1	1	2														2		
							2	1		3														3		
							1			1														1		
							1			1														1		
	2	3					10	6	2	13				2				1					5	9	2	
							2			2													2			
							1	3	1	4														4		
							1			1														1		
							1	2	2	2							1						1	2		
							1		1	1														1		
		1		1			3	4	1	6				1									5	2		
		1		1				2	1	2															2	
	1							2	1	2													1		1	
	1							2		2													2			
1	1						2			1				1									1			
			1				1			1													1			
	2		1				3	2		4						1							2	1	2	
								1		1														1		
1	1							1															1			
								1		1														1		
2							3			2				1									2	1		
							2	1		3														3		
			1				1			1													1			
	1	3	7	2			11	6		11				1		1						2	3	5	9	
							2			2														2		
								1					1										1			
1	1	1		2			2	6	1	6				1	1								1	4	3	
		4	2	1			7	4		10				1									3	3	5	
			3				1	2		2				1									2	1		
	1	2	1	1			4	1		4				1									2	1	2	
		1		1			2															2	1			1
			1				1	1		2													1	1		
							1							1										1		
			1		1		1	2		2				1										1	2	
		1					2	3	1	5														5		
3		2	1	2			11	4	2	10				3	1	1							6	6	3	
	1	1					2			2														1		1
		1	1				2				1			1									1		1	
1							2			1							1						1	1		
			1					2	1	2													1	1		
							14	2	1	16														16		
		1						3		3														2	1	
			1				1	4		3	1										1			3	2	
								1		1													1			

TABLE 32.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN MORRISTOWN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	..	..	1	..
Other diseases of the liver	115	..	....	1	..	..	..	..	..	1	..	..	..
Other diseases of the digestive system (cancer and tuberculosis excepted)	118	..	....	..	..	..	..	..	..	..	..	..	..
Acute nephritis	119	..	....	..	..	..	..	..	..	..	..	1	..
Bright's disease	120	..	....	..	1	..	..	..	..	..	..	1	..
Diseases of the bladder	124	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the prostate	126	..	....	..	..	..	..	..	..	..	..	..	..
Accidents of pregnancy	134	..	....	..	..	..	..	..	1	1	..	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	..	..	1	..	..	..	..
Other diseases of the skin and annexa	145	..	....	..	1	..	..	..	..	..	..	..	..
Diseases of the bones (tuberculosis excepted)	146	..	....	..	2	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	13	3	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	1	..	..	..	..	..
Suicide by cutting or piercing instruments	160	..	....	..	..	..	..	..	..	..	..	..	..
Burns (conflagration excepted)	167	..	....	2	..	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	..	..	..	1	..	..	..
Traumatism by fall	172	..	....	..	..	1	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	....	..	1	..	1	1	1	..	1	..	1
Injuries by animals	176	..	....	..	..	..	..	..	..	1	..	..	..
Electricity (lightning excepted)	181	..	....	..	..	..	1	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	1	8	1	..	..	..	..	..	..	..	..	..

Total deaths, 248. Death-rate 19.60.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1													1			
				1			2	1		3													2	1		
			1				1							1											1	
		1						2		1				1											2	
	1	1	1	1			3	3		5				1									2	3	1	
				1			1		1	1													1			
			1				1			1													1			
								2		2													2			
								1		1													1			
							1			1														1		
							1	1		2														2		
							9	7	2	16														16		
		1		2	1		2	2		2				1						1			1		3	
								1		1														1		
		1						1										1					1			
							1	1		2														2		
							1			1														1		
							1			1														1		
							6		1	3					2							1	1	4		1
							1							1										1		
							1			1														1		
							4	6			10														10	

TABLE 33.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,
THE YEAR ENDING

DEATHS IN NEWARK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			1	1	1	2	7	7	4	1	2	
Measles.	6		15	41	3								
Scarlet fever.	7		1	11	1			2					
Whooping cough.	8	1	8	11	1								
Diphtheria and croup.	9		15	45	14	1				1		1	
Including: Croup,	9A		1	3	1								
Influenza.	10		3	1									1
Dysentery.	14		2	1									1
Erysipelas.	18	4	7	1	1	1			1	1	1	2	1
Other epidemic diseases.	19	1		2	1								
Purulent infection and septichaemia.	20	3					1	1					
Rabies.	23				1		1						
Tetanus.	24	2		1	2								
Tuberculosis of the lungs.	28		3	2	9	6	39	73	80	80	95	84	45
Acute miliary tuberculosis.	29		1	1	1					1		1	1
Tuberculous meningitis.	30		8	28	2	1	1	4	1				
Abdominal tuberculosis.	31			2	2		1	3	1		2	3	1
Pott's disease.	32												
Tuberculosis of other organs.	34		1	2		1	3			1		1	1
Disseminated tuberculosis.	35							1					
Rickets.	36		1	1	1								
Syphilis.	37	2	8	1	1				1				
Cancer and other malignant tumors of the buccal cavity.	39										1	1	2
Cancer and other malignant tumors of the stomach, liver.	40						1		1		6	11	10
Cancer and other malignant tumors of the peritonaeum, intestines, rectum.	41			1				1			3	2	3
Cancer and other malignant tumors of the female genital organs.	42							1		1	1	9	10
Cancer and other malignant tumors of the breast.	43									3		1	2
Cancer and other malignant tumors of the skin.	44											1	
Cancer and other malignant tumors of other organs or of organs not specified	45					1		1			3	2	2
Other tumors (tumors of the female genital organs excepted).	46			1					1				
Acute articular rheumatism.	47			1	2	1	1		2				1
Chronic rheumatism and gout.	48												
Scurvy.	49		1										
Diabetes.	50						1	1			2		2
Exophthalmic goitre.	51						1			1		1	
Addison's disease.	52									1			
Leuchaemia.	53					1	1	1			1		2
Anaemia, chlorosis	54						2	1			1		1
Other general diseases	55	3		3		1						1	
Alcoholism (acute or chronic)	56								5	8	8	12	18
Other chronic poisonings.	59												
Encephalitis.	60				1	1			1		2		
Simple meningitis.	61	3	9	15	2		1		1	2	2	1	1
Including: Cerebrospinal fever.	61A		3	5	1		1			1			1
Locomotor ataxia.	62												2
Other diseases of the spinal cord.	63			2			1	2					1
Cerebral haemorrhage, apoplexy.	64	1			1			1		5	5	12	17
Softening of the brain.	65												1
Paralysis without specified cause	66			1								3	2
Other forms of mental alienation.	68												
Epilepsy.	69								1				
Convulsions of infants.	71	15	18	6									

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
3	2	1	..	..	...	...	19	13	2	21	..	..	..	5	3	..	1	..	2	..	..	..	11	19	2	...
..	..	..	..	..	...	...	32	27	2	59	..	..	..	..	..	..	..	..	..	..	..	..	..	59	...	...
..	..	..	..	..	...	...	7	8	2	14	..	..	..	..	..	1	..	..	..	..	..	..	1	14	...	...
..	..	..	..	..	...	...	10	11	3	21	..	..	..	..	..	..	..	..	..	..	..	..	..	21	...	...
..	1	..	..	..	...	...	41	37	6	77	1	..	..	..	..	..	..	..	..	..	..	..	1	77	...	...
..	..	..	..	..	...	...	3	2	...	5	..	..	..	..	..	..	..	..	..	..	..	..	..	5	...	...
..	1	1	1	..	...	...	5	3	1	4	..	..	..	2	..	1	..	..	1	..	..	..	2	5	1	...
..	1	1	3	2	1	...	4	8	3	9	..	..	1	1	1	..	..	..	..	..	..	..	2	5	5	...
1	2	2	2	1	...	...	17	11	...	19	..	..	3	1	2	2	..	..	1	..	..	..	11	15	2	...
..	..	..	..	..	...	...	3	1	...	4	..	..	..	..	..	..	..	..	..	..	..	..	..	4	...	...
..	1	..	1	..	...	...	6	1	...	6	..	..	1	..	..	..	..	..	..	..	..	..	..	5	2	...
..	..	..	..	..	...	...	2	...	...	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	...	...
..	..	1	..	..	...	...	3	3	...	5	..	..	..	1	..	..	..	..	..	..	..	..	1	5	...	...
47	26	37	11	2	...	...	447	192	52	440	16	1	47	56	29	3	22	2	16	..	5	2	280	288	68	3
1	..	..	..	..	...	...	4	3	2	6	..	..	..	..	..	..	..	..	..	..	1	..	3	3	1	...
..	..	..	..	..	...	...	26	19	3	41	1	1	..	..	..	..	..	..	2	..	..	..	1	44	...	...
..	1	1	..	..	...	...	7	10	4	12	1	..	1	..	2	1	..	..	..	..	..	..	8	8	1	...
1	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...
..	..	..	..	..	...	...	6	4	2	7	..	1	..	1	..	..	..	..	1	..	..	..	2	8	...	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...
..	..	..	..	..	...	...	1	2	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	3	...	...
..	..	..	..	..	...	...	9	4	1	13	..	..	..	..	..	..	..	..	..	..	..	..	1	12	...	...
1	5	3	5	..	...	...	12	6	...	8	..	..	5	3	1	..	..	..	..	..	1	..	9	3	6	...
19	22	40	31	6	1	...	80	68	2	54	4	..	41	11	5	6	8	1	15	..	2	1	86	13	48	1
3	1	11	5	1	...	...	9	23	1	20	1	..	6	2	..	1	1	..	1	..	..	..	14	5	13	...
10	6	9	5	2	...	...	...	54	1	32	2	..	12	5	1	1	..	..	..	..	1	..	31	6	17	...
5	2	6	1	..	...	...	...	20	...	12	2	..	4	..	1	..	..	..	..	..	1	..	12	4	4	...
..	3	3	1	..	...	...	2	6	...	3	..	..	1	3	..	..	1	..	..	..	..	..	3	..	5	...
2	..	3	5	..	...	...	11	8	...	7	2	..	4	3	2	..	..	..	1	..	..	..	12	4	3	...
..	..	..	1	1	...	...	1	3	...	1	..	..	1	1	1	..	..	..	..	..	..	..	2	2	...	...
2	..	..	2	3	...	...	4	11	1	10	..	..	2	2	..	..	1	..	..	..	..	..	4	7	4	...
1	..	..	..	..	...	...	1	...	...	...	..	..	1	..	..	..	..	..	..	..	..	..	..	1	...	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...
6	4	16	7	2	...	...	14	27	1	18	2	..	11	3	2	..	1	..	2	..	2	..	26	4	11	...
1	..	..	..	..	...	...	1	3	...	4	..	..	..	..	..	..	..	..	..	..	..	..	2	2	...	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	...	...
1	1	1	..	..	...	...	7	2	...	8	..	..	..	..	..	..	..	..	..	..	1	..	3	6	...	...
3	..	..	..	1	...	...	4	5	...	4	1	..	1	2	1	..	..	..	..	..	..	..	5	3	1	...
1	..	2	..	..	...	...	5	6	1	9	..	..	1	..	1	..	..	..	..	..	..	..	2	6	3	...
6	6	5	3	..	...	...	61	10	1	48	2	..	7	5	1	1	2	2	..	..	..	3	26	29	14	2
1	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...
..	..	..	..	..	...	...	5	...	1	4	..	..	..	1	..	..	..	..	..	..	..	..	2	3	...	...
..	..	..	1	1	...	...	20	19	1	38	..	..	..	1	..	..	..	..	..	..	..	..	5	32	2	...
..	..	1	..	..	...	...	7	6	...	11	..	..	1	..	..	..	..	..	1	..	..	..	2	11	...	...
2	1	1	..	..	...	...	4	2	...	4	..	..	..	1	..	..	1	..	..	..	..	..	3	3	...	...
..	2	4	..	..	...	...	4	8	...	10	..	..	1	..	1	..	..	..	..	..	..	..	6	3	3	...
35	42	96	71	18	4	...	148	160	11	152	16	..	65	42	7	2	8	..	7	..	1	8	141	33	133	1
..	1	1	..	..	...	...	2	1	...	2	..	..	1	..	..	..	..	..	..	..	..	..	3	..	...	...
3	1	6	5	2	...	...	10	13	1	10	1	..	5	2	2	1	1	..	..	..	1	..	12	4	7	...
..	..	3	2	..	...	...	4	1	...	3	1	..	1	..	..	..	..	..	..	..	..	..	4	..	1	...
1	1	1	..	..	...	...	...	4	...	2	..	..	..	1	1	..	..	..	..	..	..	..	1	1	2	...
..	..	..	..	..	...	...	25	14	1	38	..	..	1	..	..	..	..	..	..	..	..	..	..	39	...	...

TABLE 33.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN NEWARK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Chorea	72						1						1
Neuralgia and neuritis	73										1		
Other diseases of the nervous system	74			1	1					1			2
Other diseases of the eyes and their adnexa	75												
Diseases of the ears	76			1				1		1			
Pericarditis	77				1						1		2
Acute endocarditis	78	2		1	12	9	7	11	7	10	22	14	15
Organic diseases of the heart	79	4	6	2	4	3	4	6	3	9	18	17	13
Angina pectoris	80									1	2	2	1
Diseases of the arteries, atheroma aneurysm, etc.	81						1				1	1	3
Embolism and thrombosis	82			1					1			1	1
Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	83											1	
Diseases of the lymphatic system (lymphangitis, etc.)	84		1		1								
Haemorrhage; other diseases of the circulatory system	85												
Diseases of the larynx	87		3	1				1					
Diseases of the thyreoid body	88										1		
Acute bronchitis	89	12	31	8	2			1					2
Chronic bronchitis	90		1										2
Bronchopneumonia	91	13	84	66	2	3	2	2		1	1	1	2
Pneumonia	92	10	64	68	6	3	2	8	10	21	23	16	27
Pleurisy	93		3	2	1	1	1	2		1	1	5	3
Pulmonary congestion, pulmonary apoplexy	94	2	2							1	2	2	4
Gangrene of the lung	95			1								1	
Asthma	96											1	1
Other diseases of the respiratory system (tuberculosis excepted)	98	1	1										
Other diseases of the mouth and annexa	99		1										
Diseases of the pharynx	100		3		1				1		1		
Diseases of the oesophagus	101												
Ulcer of the stomach	102	1						1	1	2	1	3	1
Other diseases of the stomach (cancer excepted)	103	15	35	6					1	1			
Diarrhoea and enteritis (Under 2 years)	104	28	282	46									
Diarrhoea and enteritis (2 years and over)	105			17	3		1	2			5	2	2
Appendicitis and typhlitis	108			1	7	8	5	5	5	5	5	8	5
Hernias, intertinal obstructions	109	2	5							3	1	3	4
Other diseases of the intestines	110	2	1								2	1	1
Cirrhosis of the liver	113									2	2	6	8
Biliary calculi	114												
Other diseases of the liver	115	3								1	1	1	1
Diseases of the spleen	116										2		
Simple peritonitis (nonpuerperal)	117							1	1		3	1	1
Other diseases of the digestive system (cancer and tuberculosis excepted)	118												1
Acute nephritis	119		2	4	1		1	4		4	2	4	7
Bright's disease	120	1	2	1	2	2	3	6	11	14	16	33	33
Other diseases of the kidneys and annexa	122			1								1	
Calculi of the urinary passages	123											1	3
Diseases of the bladder	124							1			1		1
Other diseases of the urethra, urinary abscess, etc.	125		1								1	1	
Diseases of the prostate	126												
Nonvenereal diseases of the male genital organs	127	1											
Uterine tumor (noncancerous)	129										3		1
Other diseases of the uterus	130							1		2		3	2
Cysts and other tumors of the ovary	131												
Salpingitis and other diseases of the female genital organs	132						1		1	1	1	2	1

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	...	...	...	...	1	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	3	2	...	2	...	...	...	...	...	...	...	1	1	...	1	...	3	2	...	...
...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...
1	...	...	...	...	...	...	1	3	1	3	...	...	...	...	...	1	...	...	...	...	...	...	2	1	1	...
...	...	...	1	1	...	...	3	3	1	6	...	...	...	...	...	...	...	...	...	...	...	...	3	2	1	...
19	16	58	60	19	2	...	135	149	13	160	8	1	49	32	15	1	8	...	9	...	...	1	118	61	105	...
32	30	64	47	20	2	...	132	152	22	145	10	2	38	41	32	1	12	2	15	1	3	2	114	57	113	...
3	4	7	2	1	...	...	9	14	...	12	...	...	4	1	4	2	...	...	...	...	...	...	14	1	8	...
1	6	22	25	15	5	...	42	38	...	28	5	1	18	18	5	...	1	...	3	...	1	...	32	3	45	...
4	1	3	...	...	...	...	7	5	...	10	...	...	2	...	...	...	...	...	...	...	...	...	6	5	1	...
2	...	1	...	...	...	...	2	2	...	1	1	...	1	...	...	...	1	...	...	...	...	...	4	...	...	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	3	2	...	5	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...
1	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2	...	...	...
...	1	7	4	4	...	...	32	40	7	62	1	...	2	1	5	...	...	...	1	...	...	...	9	57	6	...
...	3	7	3	6	...	...	13	9	1	7	1	...	6	7	...	1	...	...	...	...	...	...	6	5	11	...
4	7	9	9	2	1	...	107	102	9	177	1	...	8	5	13	...	2	...	3	...	...	...	27	167	15	...
26	23	42	31	11	3	...	237	157	22	270	9	...	36	34	17	4	2	4	9	1	5	3	133	199	61	
1	3	1	2	1	...	...	17	11		12	...	...	3	2	3	1	1	...	3	...	3	...	10	11	7	...
1	5	7	7	7	...	...	13	27	2	20	1	...	8	5	1	1	1	...	...	...	3	...	17	8	15	...
...	...	1	...	...	...	...	3	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	2	1	...	...
3	4	10	7	3	...	...	14	15	4	11	8	...	7	3	1	1	1	...	1	...	...	1	18	2	8	1
2	...	...	...	1	...	...	3	2	...	2	...	...	1	1	...	...	...	...	...	...	...	...	2	2	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	...	...	...	...	4	3	...	4	...	...	...	1	...	...	...	...	2	...	...	...	1	5	1	...
...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
2	...	1	1	...	...	...	13	1	...	7	...	...	2	2	...	1	1	...	...	...	1	...	9	4	1	...
...	2	2	4	1	...	...	43	24	4	65	...	...	1	...	...	...	1	...	...	...	...	...	3	59	4	1
...	...	...	...	...	...	...	196	160	21	354	...	...	...	...	1	...	1	...	...	...	...	...	...	356	...	...
3	5	14	1	3	1	...	27	42	4	38	3	...	5	15	2	...	2	...	2	...	1	1	22	21	26	...
2	2	1	...	...	...	...	36	23	3	41	...	...	1	5	5	1	2	...	3	...	1	...	28	29	1	1
3	3	3	4	1	1	–	17	16	1	17	...	1	6	3	2	...	2	...	2	...	...	...	15	11	7	...
...	...	1	1	...	...	...	5	4	1	6	...	...	1	1	...	...	...	...	1	...	...	...	5	3	1	...
10	13	20	7	1	...	...	46	23	2	31	...	1	20	9	3	1	1	1	1	...	1	...	41	12	16	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
1	1	3	...	2	...	...	6	8	1	7	...	...	1	1	3	1	...	...	...	1	...	...	6	4	4	...
1	...	...	...	...	...	...	2	1	...	2	...	...	1	...	...	...	...	...	...	...	...	...	2	...	1	...
...	...	2	...	1	...	...	8	2	...	6	...	...	...	1	2	1	...	...	...	...	...	...	7	1	2	...
2	1	...	...	...	...	...	4	...	...	1	...	...	...	1	...	...	...	1	...	...	1	...	2	2	...	...
2	3	5	2	1	–	...	21	21	6	25	...	...	4	4	4	1	2	...	...	...	2	...	17	17	8	...
42	35	76	44	16	1	...	197	141	15	168	16	...	61	46	8	4	12	2	12	1	4	4	185	68	82	3
...	...	3	1	...	...	...	5	1	1	3	1	...	1	...	...	...	...	...	...	...	1	...	3	3	...	...
...	1	2	2	...	...	...	4	5	...	3	...	...	3	...	...	1	2	...	...	...	...	...	7	1	1	...
...	1	1	3	1	...	...	9	...	2	5	1	...	1	1	...	...	...	...	1	...	...	...	3	3	3	...
2	...	...	...	...	...	...	5	...	1	3	...	...	1	...	...	...	...	1	...	...	...	...	2	3	...	...
1	...	3	...	1	...	...	5	...	...	...	...	...	2	2	...	...	...	1	...	...	...	...	1	...	4	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	1	...	...	...	...	6	1	5	...	...	1	...	...	...	...	...	...	...	...	...	3	1	2	...
1	1	...	...	1	...	...	...	11	1	6	...	...	...	2	...	...	1	...	2	...	...	...	9	1	1	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...

TABLE 33.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN NEWARK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Accidents of pregnancy	134	...	...	...	...	...	...	3	2	3	1	...	...
Puerperal haemorrhage	135	...	...	...	...	...	2	6	...	2	3	1	...
Other accidents of labor	136	...	...	...	...	...	1	2	3	2	5	...	...
Puerperal septichaemia	137	...	...	...	...	1	...	7	8	4	2	1	...
Puerperal albuminuria and convulsions	138	...	...	...	...	...	1	...	5	7	2	1	...
Gangrene	142	...	...	1	...	...	...	...	...	...	...	1	...
Furuncle	143	...	3	...	...	...	...	...	1	...	...	...	...
Acute abscess	144	...	2	...	...	...	...	2	...	...	...	...	...
Other diseases of the skin and annexa	145	1	1	...	1	...	...	...	1	...	...	1	1
Diseases of the bones (tuberculosis excepted)	146	...	...	...	...	...	...	...	...	...	...	...	2
Diseases of the bones (tuberculosis and rheumatism excepted)	147	...	...	...	...	...	...	...	...	...	...	...	...
Congenital malformations (stillbirths not included)	150	2	4	1	1	...	...	...	...	...	...	...	...
Congenital debility, icterus and sclerema	151	201	11	1	...	...	...	...	...	...	...	...	...
Other diseases peculiar to early infancy	152	60	16	...	...	...	...	...	...	...	...	...	...
Lack of care	153	3	3	...	...	...	...	...	...	...	...	...	...
Senility	154	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by poison	155	...	...	...	...	...	1	1	...	...	2	1	1
Suicide by asphyxia	156	...	...	...	...	...	...	1	6	2	...	2	4
Suicide by hanging or strangulation	157	...	...	...	...	...	...	...	...	1	...	1	...
Suicide by drowning	158	...	...	...	...	...	...	...	...	...	...	...	...
Suicide by firearms	159	...	...	...	...	...	...	1	1	1	5	...	...
Suicide by cutting or piercing instruments	160	...	...	...	...	...	...	...	...	1	1	1	...
Suicide by jumping from a high place	161	...	...	...	...	...	...	...	...	...	...	1	...
Poisoning by food	164	...	...	...	...	1	...	...	...	...	...	...	...
Other acute poisonings	165	...	...	2	...	...	...	...	...	...	...	...	...
Conflagration	166	...	...	...	...	...	2	...	...	...	...	...	...
Burns (conflagration excepted)	167	...	...	16	4	1	1	1	1	1	...	2	2
Asborption of deleterious gases (conflagration excepted)	168	...	...	...	1	...	...	1	1	3	1	3	1
Accidental drowning	169	...	...	...	1	1	2	...	2	2	...	2	1
Traumatism by cutting or piercing instruments	171	...	...	...	...	...	...	...	...	...	...	...	1
Traumatism by fall	172	...	...	5	1	1	1	1	2	3	5	...	1
Traumatism in mines and quarries	173	...	...	...	...	...	...	...	...	...	...	...	1
Traumatism by machines	174	...	...	...	...	...	...	...	...	2	...	1	...
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	...	...	5	9	10	5	10	14	1	7	8	8
Injuries by animals	176	...	...	...	1	...	...	...	...	...	...	...	...
Excessive cold	178	...	...	...	...	...	...	...	...	...	1	...	...
Effects of heat	179	2	...	1	...	...	...	...	1	...	2	1	...
Electricity (lightning excepted)	181	...	...	...	...	...	...	2	1	...	...	...	...
Homicide by firearms	182	...	...	...	...	...	1	2	1	2	3	1	1
Homicide by cutting or piercing instruments	183	...	...	...	...	...	...	...	...	1	...	...	...
Homicide by other means	184	1	1	2	...	...	...	1	1	1	1	...	...
Other external violence	186	...	...	...	...	1	...	...	...	...	...	...	...
Cause of death not specified or ill-defined	189	2	25	...	...	...	...	...	...	...	...	...	...

Total deaths, 5,430. Death-rate, 14.55.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								7	1	4	1		2										5	2		
								9		4			2		1	1	1						9			
								14		10			3		1								13	1		
								13	2	5			1		3				4				13			
								23	2	12		1	1	1	3	2	2		1				21	2		
								16	3	9			1	1	2		1		2				16			
2		2	2	1			6	3		5					3				1				3	2	4	
							2	2		4														4		
			1				4	1		3			1		1								2	3		
2	1	3	1				9	4		6			2	3			2						2	5	6	
1	1	1					2	3		3			1		1								4		1	
			1				1							1									1			
							5	3		7					1									8		
							107	106	10	213														213		
							48	28	2	76														76		
							1	5	1	6														6		
		2	14	18	6		20	20		19	3		10	6	2								3	4	33	
1		1	1				7	2		4	1		1								2	1	3	2	2	2
3	5	3	1				19	8		14	2		4			1			3			3	14	4	7	2
1	1		1				4	1		1			2				1		1				2	1	2	
		2					2						1	1									2			
	2	2	2				14			6	1		6						1				7	4	3	
1							4			2							2						3		1	
				1				2		1			1											1	1	
							1			1														1		
		1		1			2	2		3												1	1	2	1	
							2										2							2		
		2	1				11	21		26			4	1			1						7	22	3	
		3	1				10	5		7	1		5	1								1	7	4	3	1
2							12	1		6			2		3			1				1	3	8		2
1							2		1	1	1												2			
8	4	14	11	4			40	24	1	31	1	1	11	10	4	1	3		2				27	16	21	
							1			1														1		
		1					4			2							1					1	3			1
4	5	3	4				83	10	5	48	2		8	7	9	1	5		8		1	2	45	42	4	2
							1			1														1		
		1	1				3	1		1			1								2		1	1		2
		1	3				7	4	2	5			3		1	1						1	3	5	3	
	1						4			2									1		1		3	1		
		1					12			2					4	1	1		2			2	6	2	1	3
							1								1								1			
							6	2	2	6				1								1	3	5		
							1				1													1		
							13	14		27														27		

TABLE 34.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN NEW BRUNSWICK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			2			2	1	1		1		1
Measles	6		3	4	1								
Whooping cough	8		1	3									
Diphtheria and croup	9			4									
Including: Croup	9A			1									
Influenza	10												
Dysentery	14		1										
Other epidemic diseases	19		1										
Purulent infection and septichaemia	20												
Tuberculosis of the lungs	28			2			3	4	12	6	7	5	2
Acute miliary tuberculosis	29						1						
Tuberculous meningitis	30		1										
Abdominal tuberculosis	31								1				
Disseminated tuberculosis	35												
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40									1		1	2
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42								1				2
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45												1
Acute articular rheumatism	47		1										
Diabetes	50												
Leuchaemia	53									1			
Anaemia, chlorosis	54												
Alcoholism (acute or chronic)	56									1	1		
Encephalitis	60			1									
Simple meningitis	61		2	2		1						1	
Including: Cerebrospinal fever	61A							1					
Locomotor ataxia	62												
Other diseases of the spinal cord	63										1		
Cerebral haemorrhage, apoplexy	64										1	1	1
Softening of the brain	65												
Paralysis without specified cause	66		1										
Other forms of mental alienation	68												
Epilepsy	69										1		
Convulsions of infants	71		1										
Pericarditis	77			1									
Acute endocarditis	78						1						
Organic diseases of the heart	79	1			1	2		1	2	1	1	1	2
Angina pectoris	80												1
Diseases of the arteries, atheroma aneurysm, etc.	81												
Embolism and thrombosis	82										1		
Acute bronchitis	89												
Bronchopneumonia	91	2	1	3								2	
Pneumonia	92		4	7			1	1	1	3	3	2	4
Pleurisy	93												1
Pulmonary congestion, pulmonary apoplexy	94	1											
Gangrene of the lung	95												
Asthma	96												
Diseases of the pharynx	100				1								
Ulcer of the stomach	102			1								1	
Other diseases of the stomach (cancer excepted)	103	1	2	1									
Diarrhoea and enteritis (Under 2 years)	104	6	33	4									

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		1					4	5		4			1				3		1				4	5		
							4	4		7	1													8		
							1	3		4														4		
							1	3		4														4		
								1		1														1		
			1					1						1									1			
							1			1														1		
							1			1														1		
1								1		1													1			
2		2	1				33	13	6	37			1		1		6					1	22	20	4	
								1										1						1		
							1			1														1		
								1													1		1			
		1	1				2			2													1	1		
				1				1		1															1	
2	1	3	2	1			4	9		7				3			2				1		6	2	5	
			1				1									1							1			
1		1	1	1				7		5			1	1									4	1	2	
		1	1	1			2	1		1			1								1				3	
	2	2					2	3		5													2	2	1	
		1	1				1	2	1	2	1													1	1	1
		3					1	2		2				1									2		1	
							1										1							1		
	1						1						1										1			
2		1	1				8		1	7							1						3	4	1	
	1		1				1	2		1			1	1									1	1	1	
							2	4		4				1	1								1	5		
		1					1	1		1							1						2			
1							1									1								1		
		1	2				1	3		3				1										2	2	
1	2	12	12	3			18	15		22	1		3	5			1	1					17	5	11	
		1						1		1													1			
	1	1	2	1			3	3		5				1									4	1	1	
	1							1						1											1	
								1		1													1			
								1	1	1														1		
							1			1														1		
	1	2	1				1	4		5													3	1	1	
5	2	7	6	5			22	15	1	20			9	7								1	17	11	9	
		1					1	1		1												1		1	1	
		5	5	3			8	5	1	9			2	2									6		7	
1								2		2													1	1		
			1					1		1													1			
		2	2	2	1		8	7		8			1	6									2	7	6	
2	2	3	2	2			23	14	1	25	1		2	5					1		2	1	15	17	5	
							1			1														1		
							1			1														1		
		1					1							1									1			
		1						1		1															1	
								1		1														1		
							1	1									1					1	1	1		
							3	1		4														4		
							28	15		43														43		

TABLE 34.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN NEW BRUNSWICK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diarrhoea and enteritis (2 years and over)	105	..	..	1	..	..	..	..	1	..	..	..	..
Appendicitis and typhlitis	108	..	..	..	..	..	..	..	..	1	..	..	2
Hernias, intestinal obstructions	109	..	1	..	..	..	..	..	..	..	..	1	..
Other diseases of the intestines	110	..	..	..	..	..	..	..	..	..	..	1	..
Cirrhosis of the liver	113	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the liver	115	..	..	..	..	..	..	..	..	..	..	..	..
Acute nephritis	119	..	..	..	..	..	..	1	..	..	..	..	1
Bright's disease	120	..	2	1	..	..	..	..	1	1	1	..	2
Calculi of the urinary passages	123	..	..	..	..	..	..	..	..	..	1	..	..
Diseases of the bladder	124	..	..	..	..	..	..	..	..	..	..	..	1
Other diseases of the uterus	130	..	..	..	..	..	..	..	..	..	..	1	..
Salpingitis and other diseases of the female genital organs	132	..	..	..	..	..	..	..	..	1	..	..	..
Accidents of pregnancy	134	..	..	..	..	..	..	1	..	..	..	..	..
Puerperal haemorrhage	135	..	..	..	..	..	1	..	..	1	1	..	..
Other accidents of labor	136	..	..	..	..	..	..	..	..	1	..	..	..
Puerperal septichaemia	137	..	..	..	..	..	..	1	..	1	..	..	..
Puerperal albuminuria and convulsions	138	..	..	..	..	..	..	..	..	..	1	..	..
Gangrene	142	..	..	..	..	..	..	..	..	..	..	..	..
Furuncle	143	..	..	..	..	..	..	..	..	..	..	..	..
Acute abscess	144	..	1	..	..	..	..	..	..	..	..	..	..
Other diseases of the skin and annexa	145	..	..	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	..	1	..	..	..	..	..	..	..	..	..	..
Congenital debility, iecterus and sclerema	151	28	4	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	2	1	..	..	..	..	..	..	..	..	..	..
Lack of care	153	..	2	..	..	..	..	..	..	..	..	..	..
Senility	154	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	..	..	..	..	..	1	..	..	..	..	..
Burns (conflagration excepted)	167	..	..	2	..	..	..	..	..	..	..	..	..
Accidental drowning	169	..	..	..	1	1	..	..	..	1	..	..	..
Traumatism by fall	172	..	..	1	..	..	..	..	1	..	1	1	1
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	1	..	..	2	..	4	..	1	1	..	..
Excessive cold	178	..	..	1	..	..	..	..	..	..	..	..	..
Effects of heat	179	..	2	..	..	..	..	..	..	..	..	..	..
Homicide by firearms	182	..	..	..	..	..	..	1	..	..	..	1	..
Cause of death not specified or ill-defined	189	..	9	..	..	..	..	..	..	..	..	..	..

Total deaths, 505. Death-rate, 21.50

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
	3	1	2				5	3	1	4				3					1				3	2	3	
							2	1		1	1						1						1	2		
	2						1	3		2			1		1								3	1		
								1		1														1		
		2	1				3			3													2		1	
1			1	1				3		3													2		1	
				1				3		2			1										2	1		
2	3	5	2				12	8		14			2	2			1				1		11	7	2	
								1		1															1	
							1		1	1													1			
								1		1														1		
								1		1													1			
								1		1													1			
								3		3													2	1		
								1		1													1			
								2		1							1						1	1		
								1									1						1			
	1	1		1			1	2		2				1									1		2	
			1					1						1											1	
		1						2													1	1		1	1	
		2		1			1	2		3													2		1	
							1			1														1		
							19	13	1	32														32		
								3		3														3		
							1	1		2														2		
			1	3	1		4	1		4			1											1	4	
								1		1														1		
							2		1	2														2		
	1						3	1		3												1		3		1
	1	1	1	4			6	6		8			1	2				1					2	5	5	
1							9	1		8												2	2	7		1
							1			1														1		
							2			2														2		
							2								2								1	1		
							5	4	1	9														9		

TABLE 35.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN NORTH PLAINFIELD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not Including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Scarlet fever	7										1		
Diphtheria and croup	9			2									
Influenza	10												
Tuberculosis of the lungs	28							2	2	1		1	
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the skin	44										1		
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												
Leuchaemia	53									1			
Other diseases of the spinal cord	63			1									
Cerebral haemorrhage, apoplexy	64												
Paralysis without specified cause	66												1
Epilepsy	69												
Convulsions of infants	71		1										
Acute endocarditis	78				1		1						
Organic diseases of the heart	79						1						
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.)	81												
Bronchopneumonia	91												
Pneumonia	92		2	1							2		
Pulmonary congestion, pulmonary apoplexy	94												
Other diseases of the stomach (cancer excepted)	103		1										
Diarrhoea and enteritis (Under 2 years)	104		2	1									
Diarrhoea and enteritis (2 years and over)	105				1								
Diseases of the spleen	116			1									
Acute nephritis	119											1	
Bright's disease	120												
Other accidents of labor	136									1			
Congenital debility, icterus and sclerema	151	4											
Other diseases peculiar to early infancy	152		1										
Accidental drowning	169												
Effects of heat	179	1											

Total deaths, 87. Death-rate, 13.77.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1													1			
							1	1		2														2		
1					1		1																1			
		2					5	3		6	1						1						4	3	1	
1	1		1	1			2	2		2			1					1					3		1	
		1	1				1	1					1	1									1		1	
								1		1													1			
			1					1		1													1			
		2						2					1	1									2			
								1		1														1		
							1			1														1		
		2	3	2			5	2		4			1	1		1							2	1	4	
				1			1	1		2													1	1		
	1							1		1															1	
								1		1														1		
	2	1	2	2			3	6	1	8			1										3	4	2	
1		1	2				2	3		3			1	1									3	2		
				1				1		1															1	
	1	1		1			3			3													2		1	
			1				1							1									1			
		1	1				3	4	1	6			1										3	3	1	
		1	2					3		2						1							2		1	
		1						2		1				1										2		
							1	2		3														3		
		1	1				3		2	3													1	1	1	
								1		1														1		
	1						2		1	2													2			
		1	2		1		2	2		2			1			1							2		2	
								1													1		1			
							3	1		4														4		
							1			1														1		
				1			1						1												1	
							1			1														1		

TABLE 36.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN NUTLEY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1	..	..	..	..	..	..	..	..	1	..	..	..
Measles	6	..	1	1	..	..	..	..	..	..	..	..	..
Scarlet fever	7	..	..	1	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	..	..	..	..	..	1	..	1	1	..	..
Tuberculous meningitis	30	..	..	..	1	..	..	..	..	..	..	..	..
Syphilis	37	1	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the buccal cavity	39	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the female genital organs	42	..	..	..	..	..	..	..	..	..	1	..	..
Diabetes	50	..	..	..	..	..	..	..	..	..	..	..	1
Leuchaemia	53	..	..	..	..	..	..	..	..	1	..	..	..
Other general diseases	55	..	..	..	..	..	..	..	1	..	..	..	..
Alcoholism (acute or chronic)	56	..	..	..	..	..	..	..	..	..	..	..	..
Simple meningitis	61	..	1	..	..	..	..	..	..	..	..	..	..
Other diseases of the spinal cord	63	..	..	..	..	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	..	..	..	..	..	..	..	..	1	..	..
Convulsions of infants	71	..	1	1	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	..	..	..	..	..	..	..	..	..	..	..
Organic diseases of the heart	79	..	..	..	..	..	..	..	..	..	..	..	2
Angina pectoris	80	..	..	..	..	..	..	..	..	..	..	..	..
Bronchopneumonia	91	..	5	1	..	..	..	..	..	..	..	..	..
Pneumonia	92	..	..	1	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted)	103	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	1	2	..	..	..	..	..	..	..	..	..	..
Hernias, intestinal obstructions	109	..	..	..	..	..	..	..	..	..	..	..	1
Acute nephritis	119	..	..	..	..	1	..	..	..	..	..	..	..
Bright's disease	120	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the bladder	124	..	..	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	6	..	..	..	..	..	..	..	..	..	..	..
Accidental drowning	169	..	..	..	..	..	..	1	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	..	..	..	..	..	1	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	2	..	..	..	..	..	..	..	..	..	..

Total deaths, 68. Death-rate, 10.32.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1													1			
							1	1		2														2		
							1			1														1		
2							4	1		4			1										2	3		
							1								1									1		
								1		1														1		
		1					1								1								1			
	1		1					2	1	2															2	
								1		1														1		
								1	1	1															1	
								1		1														1		
								1		1													1			
1					1		1			1													1			
							1			1													1	1		
		1					1			1													1			
		2	2				3	2	1	4				1									2		3	
							2			2														2		
		2	2	1			4	1		4										1			3		2	
		1	1				1	3		2			2										2		2	
			1				1							1											1	
			1				2	5	1	7														6	1	
1			1					3		3													2	1		
		1					1			1													1			
							2	1		3														3		
							1								1								1			
1							1	1			1			1									1	1		
		1	1				1	1		1				1									1		1	
				1			1			1													1			
							3	3		6														6		
								1							1									1		
							1															1		1		
								2		2														2		

TABLE 37.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ORANGE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1						1	1	1				
Scarlet fever	7				1								
Whooping cough	8		2	2									
Diphtheria and croup	9		1	2	1					1			
Including: Croup	9A			1									
Dysentery	14												
Erysipelas	18											1	
Anthrax	22												
Tetanus	24				1								
Tuberculosis of the lungs	28			1			5	9	5	6	9	3	3
Tuberculous meningitis	30		2	6	2		1				1	1	
Abdominal tuberculosis	31			1					1				
Tuberculosis of other organs	34				1	1							1
Rickets	36			1									
Cancer and other malignant tumors of the buccal cavity	39												1
Cancer and other malignant tumors of the stomach, liver	40											1	2
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41											1	
Cancer and other malignant tumors of the female genital organs	42							1					
Cancer and other malignant tumors of the breast	43											3	
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												
Leuchaemia	53										1		
Anaemia, chlorosis	54												
Other general diseases	55	2						1					
Alcoholism (acute or chronic)	56								1				1
Chronic lead poisoning	57												
Encephalitis	60						1					1	
Simple meningitis	61	1		4	1			1			1		1
Including: Cerebrospinal fever	61A			1	1								
Other diseases of the spinal cord	63					1							1
Cerebral haemorrhage, apoplexy	64		1	1	1					2	1	1	2
Paralysis without specified cause	66	1						1					
Other forms of mental alienation	68												
Convulsions of infants	71	1	2	1									
Other diseases of the nervous system	74											1	
Acute endocarditis	78				1			1	1	1	3	4	1
Organic diseases of the heart	79					2		1			3	5	5
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Embolism and thrombosis	82					1							
Diseases of the thyreoid body	88												
Acute bronchitis	89		3										
Chronic bronchitis	90												
Bronchopneumonia	91	1	11	6					1				
Pneumonia	92	1	6	6	1			2	2	5		1	5
Pleurisy	93											1	1
Pulmonary congestion, pulmonary apoplexy	94		1										
Asthma	96												
Pulmonary emphysema	97												
Other diseases of the mouth and annexa	99		1				1			1			
Ulcer of the stomach	102								1	2			
Other diseases of the stomach (cancer excepted)	103		1	2								1	
Diarrhoea and enteritis (Under 2 years)	104		20	4									

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
	1		1				2	3		4	1												2	2	1	
								1		1														1		
							3	1	2	4														4		
							1	4	1	5														4	1	
							1			1														1		
			1					1													1				1	
		1					1	1		1				1									1		1	
1							1			1													1			
							1		1	1														1		
4	1	1	1				32	16	1	33	3			6	5							1	15	25	8	
1							11	3	6	11								1			1	1	1	12	1	
1							2	1	2	3													1	2		
							2	1	1	2					1								1	2		
								1		1														1		
								1		1														1		
1	3	4	2	1			5	9	1	4	1		2	5							1	1	10	1	3	
	1	1					2	1		2				1									3			
		1	1	1				4		3	1												1	1	2	
	1	2	1					7	2	6			1										5	1	1	
	1		1				2			2													1	1		
		1	1				1	1		2													1	1		
							1								1								1			
		1						1		1															1	
							2	1	1	3														3		
1							2	1		2				1									2	1		
			1				1						1										1			
							2			2													1	1		
							3	6		7					2								3	6		
	1						3			2				1									1	2		
		1						3	1	3													2	1		
4	3	6	8	3			12	21	2	17			4	7	1	1	1	1			1		14	6	13	
		2		1			3	2	1	3				1	1									2	3	
				1			1			1													1			
							3	1	1	4														4		
							1			1													1			
2	1	3	2				7	13		11	1		3	3	2								10	4	6	
	2	7	4	5			20	14	2	15			3	9	4	1	1				1		13	7	14	
		2	1				3			1			1			1							3			
		2	3				5			1		1	1	2									1		4	
	1						1	1		2													1	1		
1							1			1													1			
1			1				2	3	2	4			1										1	3	1	
	1			1	1		1	2	1	2						1							2		1	
			1	2			11	11	2	20			1	1									1	19	2	
2	4	9	3	1	1		28	21	4	30	1	1	2	4	10							1	16	21	12	
							1	1								1		1					2			
								1		1														1		
	1							1	1	1															1	
				1				1		1															1	
							1	2		3													1	2		
							2	1							1	1						1	2	1		
1	1		1				3	4	2	4			1	1	1									3	4	
							15	9	3	24														24		

TABLE 37.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN ORANGE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diarrhoea and enteritis (2 years and over)	105	..	....	2	1	..	..	..	..	..	..	..	1
Appendicitis and typhlitis	108	..	....	..	2	4	..	1	1	1	..	..	..
Hernias, intestinal obstructions	109	..	....	..	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver	113	..	....	..	..	..	..	..	1	1	..	..	2
Other diseases of the liver	115	..	....	..	..	..	..	..	1	..	..	..	..
Diseases of the spleen	116	..	....	..	..	..	..	1	..	..	..	..	..
Simple peritonitis (nonpuerperal)	117	..	....	..	..	..	..	..	..	1	..	..	..
Acute nephritis	119	..	....	1	..	..	..	..	1	..	1	2	..
Bright's disease	120	..	....	..	..	..	..	..	2	2	..	4	4
Other diseases of the kidneys and annexa	122	..	....	..	..	..	..	..	..	..	..	..	..
Uterine tumor (noncancerous)	129	..	....	..	..	..	..	..	..	..	..	..	1
Other diseases of the uterus	130	..	....	..	..	..	..	..	..	..	..	..	1
Cysts and other tumors of the ovary	131	..	....	..	..	..	..	..	..	..	..	..	1
Salpingitis and other diseases of the female genital organs	132	..	....	..	..	..	..	..	..	1	1	..	..
Accidents of pregnancy	134	..	....	..	..	..	..	1	1	1	..	..	..
Puerperal haemorrhage	135	..	....	..	..	..	..	1	1	1	..	..	..
Other accidents of labor	136	..	....	..	..	..	..	..	..	..	1	..	..
Puerperal septichaemia	137	..	....	..	..	..	..	..	..	1	..	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	..	..	1	..	..	1	..
Other diseases of the skin and annexa	145	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the bones (tuberculosis excepted)	146	..	....	..	..	..	..	1	..	..	..	..	..
Diseases of the bones (tuberculosis and rheumatism excepted)	147	..	....	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	1	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	38	2	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	3	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	..	..	..	..	1	..
Burns (conflagration excepted)	167	..	....	2	1	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	1	..	..	..	..	..	1
Traumatism by firearms	170	..	....	..	1	..	..	..	..	..	..	..	..
Traumatism by fall	172	..	1	..	..	..	..	..	..	1	..	1	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	1	1	..	2	1	1	3	1	1	..
Homicide by cutting or piercing instruments	183	..	....	..	..	..	..	..	..	..	1	..	..
Other external violence	186	..	....	1	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	1	8	..	..	..	..	..	..	..	..	..	..

Total deaths, 563. Death-rate, 18.14.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	1	...	...	...	...	2	3	2	5	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	...
3	...	1	...	...	...	...	9	4	1	7	...	...	2	2	1	...	...	1	...	...	...	...	6	7	...	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
4	...	2	2	...	...	...	8	4	...	5	1	...	...	5	1	...	...	...	...	...	...	...	8	1	3	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
2	1	1	...	...	...	...	4	5	...	7	...	...	...	1	...	...	...	1	...	...	...	...	6	3	...	...
3	2	5	9	1	...	...	19	13	3	16	2	...	5	4	3	...	2	...	...	...	...	...	15	8	9	...
...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	1	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	3	1	3	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	3	1	3	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	2	1	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	23	17	9	40	...	...	...	...	...	...	...	...	...	...	...	...	...	40	...	...
...	...	...	...	...	...	...	1	3	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...
...	...	...	1	1	...	...	1	1	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
2	1	...	3	...	...	...	5	4	2	5	...	...	2	1	...	...	...	...	1	...	...	...	3	4	2	...
1	1	3	...	...	...	...	12	4	3	6	1	...	2	2	4	...	...	...	1	...	...	...	8	5	3	...
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	6	3	1	9	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...

TABLE 38.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PASSAIC CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1					1	2			1		1	1
Measles	6		9	12									
Scarlet fever	7			8			1						
Whooping cough	8		4										
Diphtheria and croup	9			6	2	1							
Including: Croup	9A			1									
Influenza	10			1									
Dysentery	14		2	1									1
Erysipelas	18												
Purulent infection and septichaemia	20							1					
Tuberculosis of the lungs	28	1		1			5	5	12	10	11	12	2
Acute miliary tuberculosis	29			1		1				1		1	
Tuberculous meningitis	30		1	1	1								
Abdominal tuberculosis	31		2				1	1					
Tuberculosis of other organs	34					2			1				
Disseminated tuberculosis	35		1										
Syphilis:	37	1	1	1								1	
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40							1		1		2	
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41								1			1	
Cancer and other malignant tumors of the female genital organs	42										1	4	
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45							1					1
Diabetes	50						1						
Leuchaemia	53												
Anaemia, chlorosis	54												
Other general diseases	55	1											
Alcoholism (acute or chronic)	56							1	1	2	2	3	1
Encephalitis	60		1										
Simple meningitis	61			1						1	1		
Including: Cerebrospinal fever	61A			2									
Locomotor ataxia	62												
Other diseases of the spinal cord	63												
Cerebral haemorrhage, apoplexy	64	1					1		2	1	1	1	2
Paralysis without specified cause	66												1
Other forms of mental alienation	68												
Convulsions of infants	71	3	5	1									
Chorea	72	2	2	2									
Neuralgia and neuritis	73												
Other diseases of the nervous system	74												
Acute endocarditis	78				1		1	3		1	1	2	
Organic diseases of the heart	79		1				4	3	5	1	4	4	5
Angina pectoris	80									1			
Diseases of the arteries, atheroma aneurysm, etc	81												
Embolism and thrombosis	82												
Haemorrhage; other diseases of the criculatory system	85			2									
Acute bronchitis	89		6	2									
Bronchopneumonia	91	5	34	8	1	1						1	2
Pneumonia	92	6	36	24	2			2		1	4	3	4
Pleurisy	93	1	1					1					
Pulmonary congestion, pulmonary apoplexy	94	1					1			1			2

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2	4		3				1			2						3	3		
							8	13		18					1		1					1		21		
							4	5		5					1		2				1			9		
							2	2		4														4		
							3	6		9														9		
							1			1														1		
			1	1				3		2	1												1	1	1	
							2	2		3							1						1	3		
	1						1								1								1			
							1			1														1		
2	1	3					37	28		23			1	2	2	1	23	1	4	5		3	38	22	5	
							3	1		2							1			1			2	2		
							3			3														3		
							2	2		3							1						1	3		
							1	2		2			1										1	2		
							1			1														1		
							3	1	1	4														3	1	
	2						2						1				1						2			
1	5	4	4	1			10	9		3	2		4	2			4		2	1		1	14	1	4	
		1	1				1	3		1			1	1							1		2		2	
			2					7		2			3	2									5	2		
			1					1		1															1	
					1			1						1											1	
1							3			1			1	1									2	1		
2			1				2	2		2			1		1								3	1		
	1		1				1	1		1										1			1		1	
	1						1				1													1		
							1			1														1		
1	3	1					15			3	1			3		2	4		1			1	7	6	1	1
							1			1														1		
							3			3													1	2		
							1	1		2														2		
	1						1			1													1			
1		1					2			1										1			2			
2	1	5	8				11	14		7			3		1	2	4	1	4		3		12	4	9	
							1												1				1			
		2					1	1		2													1		1	
							4	5		9														9		
							5	1		6														6		
	1						1										1						1			
		1						1		1															1	
1	3	4	4				8	13	1	6			6	1	1	2			3	2			12	5	4	
5	2	10	6	1			28	23	2	16	2		2	4	3	1	15	1	4	1		2	26	11	14	
		3					3	1		2			1									1	3			1
1		3	1	3			6	2		4	1		1	1								1	3		4	1
	1		1					2		1			1											1	1	
								2		2														2		
		1					6	3		8	1												1	8		
		1	2				25	30		47			1	1	2				2	1		1	4	49	2	
3	3	7	3	2			49	53		84	1		4	3	1	1	6		1	1			17	77	8	
							2	1		3														3		
	1				1		2	5		3				1			1		1			1	3	2	2	

TABLE 38.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PASSAIC CITY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Asthma	96	..	..	..	..	..	..	..	..	..	..	1	..
Ulcer of the stomach	102	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted)	103	4	5	..	..	..	..	..	..	..	..	..	1
Diarrhoea and enteritis (Under 2 years)	104	16	84	22	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	..	4	..	..	..	1	..	..	..	..	..
Appendicitis and typhlitis	108	..	..	..	..	1	4	..	2	1	..	..	..
Hernias, intestinal obstructions	109	..	..	..	..	..	..	1	1	..	..	..	1
Cirrhosis of the liver	113	..	..	..	..	..	..	..	..	..	..	..	1
Other diseases of the liver	115	..	1	..	..	..	1	..	..	..	..	..	..
Simple peritonitis (non-puerperal)	117	..	..	1	..	..	..	..	1	..	..	..	1
Acute nephritis	119	..	1	..	..	..	..	1	..	2	..	1	1
Bright's disease	120	..	..	..	..	2	..	..	1	1	4	7	3
Calculi of the urinary passages	123	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the urethra, urinary abscess, etc.	125	1	..	..	..	..	..	..	..	..	..	..	..
Diseases of the prostate	126	..	..	..	..	..	..	..	..	..	..	..	..
Salpingitis and other diseases of the female genital organs	132	..	..	..	..	..	..	..	..	..	..	1	..
Accidents of pregnancy	134	..	..	..	..	..	..	2	..	..	2	..	..
Puerperal haemorrhage	135	..	..	..	..	..	..	1	1	..	..	1	..
Other accidents of labor	136	..	..	..	..	..	..	..	2	..	..	..	..
Puerperal septichaemia	137	..	..	..	..	..	..	1	1	..	2	..	..
Puerperal albuminuria and convulsions	138	..	..	..	..	..	..	3	..	2	1	..	..
Other diseases of the skin and annexa	145	1	..	..	..	..	1	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	2	..	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	64	1	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	2	1	..	..	..	..	..	..	..	..	..	..
Lack of care	153	1	..	..	..	..	..	..	..	..	..	..	..
Senility	154	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	..	..	..	..	..	..	1	1	..	..	1
Suicide by firearms	159	..	..	..	..	..	..	1	..	..	..	1	..
Burns (conflagration excepted)	167	..	..	3	1	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	..	..	..	..	..	1	..	1	..	1	1
Accidental drowning	169	..	..	2	..	..	..	..	..	..	..	1	..
Traumatism by fall	172	..	1	1	2	..	..	1	3	1	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	..	..	1	..	3	1	1	1	1	1	1
Injuries by animals	176	..	1	..	..	..	..	..	..	..	..	..	..
Effects of heat	179	..	1	..	..	..	..	..	..	..	..	..	..
Electricity (lightning excepted)	181	..	..	..	..	..	..	..	..	..	..	1	..
Homicide by firearms	182	..	..	..	..	1	..	..	..	..	..	..	..
Homicide by other means	184	1	..	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	3	20	2	..	..	..	..	..	..	..	..	..

Total deaths, 909. Death-rate, 14.77.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		1						2		1									1				2			
1								1									1								1	
							5	5		9									1				1	9		
							61	61		121												1		122		
1		1	1				4	4		4	1						2				1		1	5	2	
1							4	5		7			1							1			3	6		
							3									1	1		1				2	1		
	1	2					4			1			1	1			1						4			
							1	1		2														2		
							2	1		2								1					1	2		
1			1				6	2		6				1					1				4	3	1	
6	3	6	2	1			21	15		12	1		2	1	3	1	9		2	3	1	1	24	4	8	
1		1					1	1		1							1						1		1	
							1			1														1		
	1						1										1						1			
		1						2		1	1												1		1	
								4		3							1						4			
								3									2			1			3			
								2									2						2			
								4		2							2						4			
								6		1					1		2				1	1	6			
							1	1		1												1	1	1		
							2			1												1		2		
							32	33		65														65		
							1	2		3														3		
								1		1														1		
			1	1			2			2															2	
							1	2		1									2				3			
							2						1		1								2			
		2					2	4		5			1										2	4		
		1	1				4	2		1				2					1	1		1	4	1		1
			2				3	2		2			1				1			1			2	2	1	
	1	2		1			8	5		4				1			3			1	3	1	8	3	2	
	4	1					15			5			1		2		1		2		2	2	6	7	1	1
								1		1														1		
							1			1														1		
							1			1													1			
							1										1							1		
							1			1														1		
							15	10		23					1					1				25		

TABLE 39.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PATERSON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1						1	1				2	
Measles	6		7	17	3								
Scarlet fever	7			2	3	2		1					
Whooping cough	8	1	1	1									
Diphtheria and croup	9		1	16	4		1			1			
Including: Croup	9A		1		1								
Dysentery	14		2										
Erysipelas	18			1									
Purulent infection and septichaemia	20												
Tetanus	24										1		
Pellagra	26												
Tuberculosis of the lungs	28					7	7	25	16	16	17	18	13
Acute miliary tuberculosis	29						1	1					
Tuberculous meningitis	30			4	4								
Abdominal tuberculosis	31		1	2			1		1	2			
Pott's disease	32				1								
Tuberculosis of other organs	34						1						
Syphilis	37	1	1							1			
Cancer and other malignant tumors of the buccal cavity	39												1
Cancer and other malignant tumors of the stomach, liver	40								2	4	2	1	2
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41			1					1		3	1	
Cancer and other malignant tumors of the female genital organs	42								1	1	2	4	3
Cancer and other malignant tumors of the breast	43											1	4
Cancer and other malignant tumors of the skin	44												1
Cancer and other malignant tumors of other organs or of organs not specified	45				1					1	1	4	1
Other tumors (tumors of the female genital organs excepted)	46						1		1				1
Acute articular rheumatism	47						1						
Chronic rheumatism and gout	48												
Scurvy	49		1										
Diabetes	50					1	1		1				2
Addison's disease	52												
Leuchaemia	53				1								
Anaemia chlorosis	54					1					1		2
Other general diseases	55			1		1	1						1
Alcoholism (acute or chronic)	56						1				1	2	1
Encephalitis	60	1											
Simple meningitis	61	1	6	8	3	1						1	1
Including: Cerebrospinal fever	61A		2	4				1					
Locomotor ataxia	62												1
Other diseases of the spinal cord	63			3						1		2	
Cerebral haemorrhage, apoplexy	64	1			1					1	3	5	6
Softening of the brain	65												1
Paralysis without specified cause	66							1					1
Other forms of mental alienation	68							1					
Epilepsy	69			1	1					1			
Convulsions of infants	71	5	7	3									
Chorea	72				1								
Other diseases of the nervous system	74							1		1			
Pericarditis	77												
Acute endocarditis	78				2		2	2	1	1	3	2	6
Organic diseases of the heart	79	1			4	2	7	4	2	4	5	9	10
Angina pectoris	80											1	

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
2		1					3	4		6						1							3	2	2	
							13	14	1	26					1									27		
							4	4	1	7					1								1	7		
							1	2		3														3		
							10	13		22			1										1	22		
							1	1		2														2		
2	2	3	2	4			8	7		6	2			3		3					1		4	4	7	
1	1	1	1				1	4		3			1		1								1	2	2	
1							1			1													1			
							1			1													1			
	1							1		1													1			
12	8	6	6				86	65	9	90	10	1	5	9	7	6	2	2	1	8	6	4	75	63	13	
							1	1		2													1	1		
							5	3	1	8														8		
							2	4		5				1									1	4	1	
								1		1														1		
								1							1								1			
							3			3													1	2		
		1	1				1	2			1					2							1		2	
12	6	9	9	2			24	25	1	13	3		9	9	1		1		3	5	5		31	5	13	
3	2	3	2				9	7		8	1		2	1		1					3		9	5	2	
2	2	1						16		8			2		2	2			1		1		15		1	
	1	4	2					12		7	2		1	1							1		4	3	5	
		3					4			2				2									2		2	
2	2		1	1			6	8		5	1	1		4	1					2			8	5	1	
	1						3	1		2			2										1	2	1	
		2					1	2		3														1	2	
			1					1												1			1			
							1			1														1		
		10	1				6	10		7	1		1	2					2		3		6	2	8	
1							1			1													1			
							1			1														1		
			1				2	3		3	1				1								1	3	1	
	1						3	2		3				1					1				2	2	1	
	1	1					6	1		2				2					1			2	3	1	1	2
								1		1														1		
1		1					10	13	1	19	1			2						1			3	20		
							3	4		7														7		
							1			1													1			
		1					3	4		5	1			1									2	4	1	
3	10	27	21	7	1		47	39		37	8		9	10	8	4	1		1	2	5	1	43	18	25	
		1					1	1		2													1		1	
	1	6	4	5			7	11	1	13			1	2		1				1			5	3	10	
1	1			1			3	1		4														4		
							3			2												1	1	2		
							7	8	1	15														15		
								1		1														1		
		1					2	1		2											1			2	1	
		1	1				1	1		1					1										2	
5	6	30	18	11	2		54	37	3	38	5	3	13	17	3	4	1			5	2		39	20	32	
13	16	48	32	7	1		94	71	6	43	16	1	16	24	16	3			4	14	6	2	81	34	48	2
1		2					4			3			1										3		1	

TABLE 39.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PATERSON		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diseases of the arteries, atheroma aneurysm, etc.	81							1				1	1
Embolism and thrombosis	82		1						1				
Diseases of the veins (varices, haemorrhoids, phlebitis, etc.	83											1	
Diseases of the lymphatic system (lymphangitis, etc.)	84									1			
Haemorrhage; other diseases of the circulatory system	85												1
Diseases of the larynx	87		1	1							1		
Acute bronchitis	89	3	12	3									
Chronic bronchitis	90											2	
Bronchopneumonia	91	6	27	22	1		1				1		1
Pneumonia	92	3	18	27	3	2	1	3	5	4	8	7	13
Pleurisy	93			3						1	2	2	
Pulmonary congestion, pulmonary apoplexy	94		2	1				1			3	2	
Gangrene of the lung	95									1			
Asthma	96												1
Pulmonary emphysema	97			1									
Other diseases of the respiratory system (tuberculosis excepted)	98										1		
Other diseases of the mouth and annexa	99												
Diseases of the pharynx	100			3									
Ulcer of the stomach	102			1							1		
Other diseases of the stomach (cancer excepted)	103	1	4	1									1
Diarrhoea and enteritis (Under 2 years)	104	11	70	15									
Diarrhoea and enteritis (2 years and over)	105			4		1				1	4		1
Appendicitis and typhlitis	108				1		4	3	1	1	1	2	3
Hernias, intestinal obstructions	109	1	1				1					2	2
Other diseases of the intestines	110												
Cirrhosis of the liver	113							1	1	4	2	2	1
Other diseases of the liver	115				1						1		
Acute nephritis	119		1						1	3	3	3	1
Bright's disease	120			2	1		2	4		1	3	7	11
Other diseases of the kidneys and annexa	122										1		
Calculi of the urinary passages	123								1		1		
Diseases of the bladder	124								1				
Diseases of the prostate	126										1		
Uterine tumor (noncancerous)	129								1				1
Other diseases of the uterus	130												1
Cysts and other tumors of the ovary	131									1			
Salpingitis and other diseases of the female genital organs	132										2		
Accidents of pregnancy	134							1	1	1	1		
Puerperal hemorrhage	135						2		1				
Other accidents of labor	136							1					
Puerperal septichaemia	137							3		1	1	1	
Puerperal albuminuria and convulsions	138								2		1		
Puerperal phlegmasia alba dolens, embolus, sudden death	139									1			
Gangrene	142												
Acute abscess	144								1				
Other diseases of the skin and annexa	145	1										1	
Diseases of the bones (tuberculosis excepted)	146					1					1		
Congenital malformations (stillbirths not included)	150	1	1										
Congenital debility, icterus and sclerema	151	69	5										
Other diseases peculiar to early infancy	152	8	3										
Senility	154												
Suicide by poison	155							1				1	

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
1	2	4	10	2	1		16	7		10	3		3	4						3			11	2	10	
	1	1					3	1	2	3	1												2	2		
							1								1								1			
							1			1														1		
								1		1													1			
							2			2														2		
		4	3	2	1		11	18		21	3			2	1	1				1			5	18	6	
	1		2	1			1	5		1	2			1		1					1		4	1	1	
1		3	2	5			31	39	1	62	1		1	3	2	1							4	57	9	
7	14	26	18	4	1		91	73	7	100	14	1	10	14	11	3	2			3	5	1	51	77	36	
		2					7	3		6	1		1	1	1								5	4	1	
1	4	4	4	2			17	7		9	3		1	4	1	1	1			4			11	6	7	
								1					1										1			
1	1		2				2	3		1	2		1	1									3		2	
							1			1														1		
		1					1	1		1			1										1		1	
				1				1								1									1	
							1	2		3														3		
		1	1				3	1		2					1					1				2	2	
		3	1	1			6	6	1	10	2												4	6	2	
							56	40	2	95					1									96		
1	4	3	4	1			12	12	1	15	2			4	1						2		13	7	4	
	1						9	8		13			1		1						2		8	8	1	
2		6	1	2			5	13		10	2		1	1	1					1	2		10	4	4	
		1	2					3			1			1	1								1		2	
2	5	2	3				14	9		4	3	2	3	4	3	1			2		1		16	2	5	
			1				3			1			1				1						2	1		
2	1	3	3	1			9	13		9	1		2	1	1	3				3		2	14	2	6	
8	14	22	24	8	1		57	51		48	7	2	12	10	6	6		3	3	10	1		52	20	36	
								1		1													1			
1							1	2			1				1						1			3		
	1	1					2	1		2					1								3			
		1	2				4			3	1												4			
								2							1						1		2			
								1			1												1			
1								2			1										1		2			
								2		1											1		1		1	
								4		4													4			
								3		1					2								1	2		
								1		1													1			
								6		3				1	1	1							5		1	
								3		1					1	1							3			
								1		1													1			
		1	1				1	1			1			1											2	
							1			1													1			
1							1	2		3													2	1		
							2			2														2		
							1	1		2														2		
							48	26	3	74														74		
							7	4	1	11														11		
		1	8	2	2		5	8		5	1		1	5	1								5	1	7	
								2		1			1										1	1		

TABLE 39.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PATERSON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Suicide by asphyxia	156	..	....	..	..	..	..	..	1	..	1	..	1
Suicide by hanging or strangulation	157	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by drowning	158	..	....	..	..	..	..	..	..	..	1	..	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	..	..	3	1
Suicide by cutting or piercing instruments	160	..	....	..	..	..	..	..	..	..	..	1	..
Other acute poisonings	165	..	....	..	..	..	..	..	..	..	2	1	..
Burns (conflagration excepted)	167	..	....	7	5	..	..	..	..	..	1	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	1	..	..	..	..	..	1
Accidental drowning	169	..	....	1	1	1	..	..	..	..	1	..	..
Traumatism by firearms	170	..	....	..	..	..	..	..	..	..	1	..	..
Traumatism by fall	172	..	....	..	..	..	..	1	..	2	1	3	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	1	5	2	1	3	3	3	5	5	6
Effects of heat	179	..	....	..	..	..	..	..	..	..	..	..	1
Electricity (lightning excepted)	181	..	....	..	..	..	..	..	..	..	..	..	1
Homicide by firearms	182	..	....	..	..	..	1	1	..	..	2	..	..
Homicide by cutting or piercing instruments	183	..	....	..	..	..	..	..	..	..	..	1	..
Other external violence	186	..	....	1	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	1	23	2	1	..	..	..	..	..	..	..	..

Total deaths, 1,822. Death-rate, 13 88.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	1	..	..	..	...	...	2	2	....	2	1	..	..	..	..	..	..	..	1	..	..	..	2	1	1	...
1	2	..	..	..	...	...	2	1	....	2	..	..	1	..	..	..	..	..	..	..	..	..	2	...	1	...
..	..	..	..	..	...	...	...	1	....	.....	..	..	..	..	..	..	..	..	..	..	..	1	...	...	1	...
2	..	1	..	..	...	...	7	...	....	3	1	..	1	..	..	..	..	..	1	..	..	1	3	1	1	2
..	..	2	..	..	...	...	2	1	....	.....	1	..	..	..	1	..	..	..	..	1	..	..	2	1	...	...
..	..	..	..	..	...	...	2	1	....	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	...	...
..	2	..	..	..	...	...	4	11	....	13	..	..	..	..	1	..	..	..	1	..	..	..	2	12	1	...
..	1	1	..	1	...	...	2	3	....	2	1	..	..	..	..	1	..	..	1	..	..	..	3	2	...	...
..	..	..	..	..	...	...	3	1	....	3	..	..	..	1	..	..	..	..	..	..	..	..	1	3	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
1	1	2	2	1	1	...	9	6	1	6	1	..	2	2	..	2	..	..	1	..	..	1	5	2	8	...
2	1	5	1	1	...	...	39	5	2	20	2	3	3	2	6	1	2	..	2	1	..	2	22	16	4	2
..	..	..	..	..	...	...	1	...	....	.....	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...	1
..	..	..	..	..	...	...	1	...	....	.....	1	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	1	..	...	...	4	1	....	1	..	..	..	..	3	..	..	..	..	..	..	1	2	1	1	1
..	..	..	..	..	...	...	1	...	....	.....	..	..	..	..	1	..	..	..	..	..	..	..	1	...	...	...
1	..	..	..	..	...	...	...	2	....	1	..	..	1	..	..	..	..	..	..	..	..	..	1	1	...	...
..	..	..	..	..	...	...	15	12	2	27	..	..	..	..	..	..	..	..	..	..	..	..	...	27	...	...

TABLE 40.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PERTH AMBOY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			1		1		1					
Measles	6		5	14	2								
Scarlet fever	7						1						
Whooping cough	8			1									
Diphtheria and croup	9		1	6	7								
Including: Croup	9A			2	1								
Influenza	10		1										
Dysentery	14		2	1									
Erysipelas	18		1										
Tuberculosis of the lungs	28			1			2	5	4	6	6	5	4
Tuberculous meningitis	30									1			
Abdominal tuberculosis	31							1					
Syphilis	37												
Cancer and other malignant tumors of the stomach, liver	40										1	2	2
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41		1								1		
Cancer and other malignant tumors of the female genital organs	42												1
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of the skin	44											1	
Cancer and other malignant tumors of other organs or of organs not specified	45												1
Diabetes	50		1										
Exophthalmic goitre	51			1									
Anaemia, chlorosis	54												1
Alcoholism (acute or chronic)	56									1			4
Chronic lead poisoning	57								1				
Simple meningitis	61	1	1	5	2				1				
Other diseases of the spinal cord	63		2										
Cerebral haemorrhage, apoplexy	64											1	2
Convulsions of infants	71	5	9	2									
Pericarditis	77												1
Acute endocarditis	78					1	1				1		1
Organic diseases of the heart	79	2		1		1		3	1	1			
Diseases of the arteries, atheroma aneurysm, etc.	81												
Embolism and thrombosis	82									1	1		
Diseases of the veins (varices, haemorrhoids, phlebitis, etc)	83								2				
Diseases of the lymphatic system (lymphangitis, etc.)	84						1						
Diseases of the larynx	87		2										
Acute bronchitis	89	1	5										1
Chronic bronchitis	90												
Bronchopneumonia	91		3	3									
Pneumonia	92	1	20	16	1			1			1		1
Pleurisy	93			1									
Pulmonary congestion, pulmonary apoplexy	94												
Asthma	96												
Other diseases of the respiratory system (tuberculosis excepted)	98		1										
Other diseases of the stomach (cancer excepted)	103												
Diarrhoea and enteritis (Under 2 years)	104	4	57	20									
Diarrhoea and enteritis (2 years and over)	105			1				1					
Appendicitis and typhlitis	108								1				

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								3		1							1		1				1	2		
							7	14		21														21		
								1											1				1			
							1			1														1		
							8	6		13							1							14		
							1	2		3														3		
							1			1														1		
							2	1		3														3		
								1		1														1		
2		2					18	19	1	12			3	4			9	4	5				23	14		
								1		1													1			
								1									1						1			
1							1										1						1			
3		2	2				6	6		4					2		2	2	2				9	1	2	
	1	1					2	2		3			1										2	2		
	1							2									1		1				1	1		
				1			1							1									1			
								1											1				1			
		2	1				3	1		3							1						1		3	
2		2					1	4		3				1			1						3	1	1	
							1			1														1		
		1					2			1						1							2			
1	1						4	3		3				2			1	1					3	4		
1							2										2						1	1		
							4	6		10													1	9		
		2					2	2		3				1									1	2	1	
	1	2	1	4	1		7	5	1	3				1			1	3	2		1	1	4	1	6	1
							11	5		16														16		
							1												1				1			
3		1					6	2		3			1	1			1		2				4	1	3	
3	1	2	2	3			13	7		10				1			5	1	2		1		12	3	5	
		1	2				3			3													2	1		
							1	1									1		1				2			
							2										2						2			
							1										1							1		
							1	1		2														2		
					1		2	6		7				1									1	6	1	
			1					1		1															1	
							5	1		6														6		
1	1	1	2	1			29	18		39				1			4	1	1		1		5	37	5	
							1			1														1		
	1		1	1	1		1	8		1					1			2					1	1	2	
		1	1				1	1		1	1														2	
								1		1														1		
		1						1							1										1	
							36	45		81														81		
2							2	2		3				1									1	3		
								1									1						1			

TABLE 40.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PERTH AMBOY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Hernias, intestinal obstructions	109	1	....	..	..	..	..	..	..	..	..	1	..
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	..	..	..	..
Simple peritonitis (nonpuerperal)	117	..	....	1	..	..	..	..	..	..	..	..	..
Other diseases of the digestive system (cancer and tuberculosis excepted)	118	..	....	..	..	..	..	..	..	..	..	1	..
Acute nephritis	119	..	....	..	..	..	1	1	1	1	..	..	..
Bright's disease	120	..	....	1	..	1	1	..	..	2	1	3	1
Puerperal haemorrhage	135	..	....	..	..	..	..	..	1	1	1	..	..
Puerperal septichaemia	137	..	....	..	..	..	1	..	..	1	1	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	..	..	1	..	..	..	..
Congenital malformations (still births not included)	150	2	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	30	1	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	2	....	..	..	..	..	..	..	..	..	..	..
Lack of care	153	1	....	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by hanging or strangulation	157	..	....	..	..	..	..	..	..	..	1	..	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	..	..	..	..
Other acute poisonings	165	..	1	..	..	..	..	..	..	..	..	..	..
Burns (conflagration excepted)	167	..	....	2	2	..	..	1	1	1	1	..	1
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	..	1	..	..	..	..	..
Accidental drowning	169	..	....	..	1	2	..	..	..	..	..	..	..
Traumatism by fall	172	..	....	..	..	..	..	..	..	..	..	1	1
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	....	1	6	..	1	2	2	1	2	3	1
Homicide by firearms	182	..	....	..	..	..	1	1	1	..	..	..	..
Homicide by other means	184	..	....	..	..	1	..	..	..	..	..	..	..
Other external violence	186	..	....	..	..	..	1	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	1	13	5	.	..	..	..	..	..	..	..	..

Total deaths, 517. Death-rate, 14.94.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
2	..	..	1	..	...	...	3	2	....	1	..	..	1	..	..	..	1	..	2	..	..	..	4	1	...	...
2	2	1	..	..	...	...	5	...	....	...	..	..	..	1	1	..	2	..	1	..	..	..	5	...	...	...
..	..	..	..	..	...	...	...	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..	.	1	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	...	...
..	..	..	..	2	...	...	2	4	....	2	..	..	1	1	..	..	2	..	..	..	..	..	4	...	2	...
1	2	4	2	2	...	...	9	12	....	10	..	..	1	1	..	..	3	3	1	..	1	1	11	4	5	1
..	..	..	..	..	...	...	...	3	....	1	..	..	..	..	..	..	1	..	1	..	..	..	1	2	...	...
..	..	..	..	..	...	...	...	3	....	1	..	..	..	..	1	..	1	..	..	..	..	..	2	1	...	...
..	..	..	..	..	...	...	...	1	....	...	..	..	..	..	..	..	1	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	1	1	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	2	...	...
..	..	..	..	..	...	...	19	12	....	31	..	..	..	..	..	..	..	..	..	..	..	..	...	31	...	...
..	..	..	..	..	...	...	2	...	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	2	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	1	..	2	...	...	3	....	...	..	..	..	1	..	..	..	2	..	..	..	..	...	1	2	...
..	..	..	..	..	...	...	1	...	....	...	..	..	..	..	..	..	1	..	..	..	..	..	1	...	...	...
..	1	..	..	..	...	...	1	...	....	...	..	..	1	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	7	2	....	6	..	..	..	.	..	1	1	..	1	..	..	..	4	5	...	...
..	..	..	..	..	...	...	1	...	....	...	..	..	..	..	..	..	1	..	..	..	..	..	...	1	...	...
..	1	..	..	..	..	...	4	...	....	3	..	..	..	..	..	1	.	..	..	..	..	..	1	3	...	...
..	..	..	..	..	...	...	2	...	....	...	..	..	..	..	..	..	1	..	1	..	..	..	2	...	...	...
..	1	2	..	..	..	...	16	6	....	11	1	..	..	1	1	..	3	1	4	..	..	..	5	15	2	...
..	..	..	..	..	...	...	3	...	....	...	1	..	..	..	.	..	2	..	..	..	..	..	...	3	...	...
..	..	..	..	..	...	...	...	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	...	1	....	1	..	..	..	.	..	..	..	..	..	..	..	..	...	1	...	..
..	..	..	..	..	...	...	9	10	....	19	..	..	..	..	..	..	..	..	..	..	..	..	...	19	...	...

TABLE 41.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PHILLIPSBURG.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			1									
Smallpox	5						1						
Scarlet fever	7			1									
Diphtheria and croup	9			1									
Including: Croup	9A		1										
Influenza	10									1			
Dysentery	14		1										
Purulent infection and septichaemia	20												
Tuberculosis of the lungs	28						3	6	2	3	4	1	
Abdominal tuberculosis	31										1		
Tuberculosis of other organs	34												
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40										1		
Cancer and other malignant tumors of the female genital organs	42										1		
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45										1		
Diabetes	50												
Anaemia, chlorosis	54												
Other general diseases	55												
Alcoholism (acute or chronic)	56												
Encephalitis	60											1	
Simple meningitis	61		1		1								
Cerebral haemorrhage, apoplexy	64		1									1	1
Paralysis without specified cause	66												
Other forms of mental alienation	68												
Convulsions of infants	71	2		1									
Acute endocarditis	78												
Organic diseases of the heart	79												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Diseases of the larynx	87										1		
Acute bronchitis	89	1	4					1					
Chronic bronchitis	90												
Bronchopneumonia	91	1	4							1			
Pneumonia	92	1	3										
Pulmonary congestion, pulmonary apoplexy	94												
Diseases of the pharynx	100			1									
Other diseases of the stomach (cancer excepted)	103		1		1								
Diarrhoea and enteritis (Under 2 years)	104	2	10	3									
Diarrhoea and enteritis (2 years and over)	105												1
Bright's disease	120	1							1		2	2	1
Other accidents of labor	136							1					
Puerperal septichaemia	137							1	1				
Puerperal albuminuria and convulsions	138								1				
Puerperal phlegmasia alba dolens, embolus, sudden death	139								1				
Gangrene	142		1										
Congenital debility, icterus and sclerema	151	10											
Suicide by asphyxia	156												
Suicide by firearms	159											1	
Absorption of deleterious gases (conflagration excepted)	168						1						
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175										2		1
Homicide by firearms	182					1							
Cause of death not specified or ill-defined	189	1	2										

Total deaths, 189. Death-rate, 13.38.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		1					1	1		2													1	1		
							1									1								1		
								1		1														1		
								1		1														1		
							1			1														1		
		1		2			1	3		1			1	1								1	2	1	1	
							1			1														1		
	1							1		1													1			
1	1	1					13	9		22													10	11	1	
								1		1													1			
	1						1			1													1			
		1					1			1													1			
								1		1													1			
								1		1													1			
			1					1						1										1		
							1			1													1			
		1	1				1	1		1				1									1		1	
1								1		1													1			
		1					1							1									1			
	1						1			1															1	
								1		1													1			
								2		2														2		
5	2	6	4	4			7	17		18			3	2							1		13	1	10	
			1	2			1	2		3													1		2	
		1					1			1													1			
							2	1		3														3		
1	2						2	1		2				1									3			
	1	5	5	1			6	6		8			2	2									5	1	6	
			2	1			2	1		1				2											3	
							1			1														1		
								6		6														6		
			1					1		1													1			
			1				5	2		5				2									1	6		
		1	1	1			5	2		6				1									2	4	1	
		1						1														1			1	
								1		1														1		
		1					2	1		3													1	2		
							5	10	1	14							1							15		
		1					1	1		2													1	1		
1	1	2	1	1			4	9		11			1	1									6	4	3	
								1		1													1			
								2		2													2			
								1		1													1			
								1									1						1			
				1			1	1		2														1	1	
							6	4		10														10		
		1					1			1													1			
1							2			2													1		1	
								1													1			1		
		2					2							2									2			
1	1	1	1				7			6				1									5	2		
								1		1														1		
							1	2		3														3		

TABLE 42.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,
THE YEAR ENDING

DEATHS IN PLAINFIELD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1							2		1			
Malaria	4												
Measles	6		1	3		1							
Whooping cough	8	1	1	1									
Diphtheria and croup	9		1		1								
Influenza	10												
Dysentery	14			1									
Erysipelas	18												
Tetanus	24									1			
Tuberculosis of the lungs	28						1		1	4	2	2	2
Acute miliary tuberculosis	29			1									
Tuberculous meningitis	30		1	2									
Abdominal tuberculosis	31			1									
Cancer and other malignant tumors of the stomach, liver	40												1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												1
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50								1		1		
Exophthalmic goitre	51							1		1			
Addison's disease	53												
Alcoholism (acute or chronic)	56											1	
Encephalitis	60									1			
Simple meningitis	61								1				
Including: Cerebrospinal fever	61A		1										
Cerebral haemorrhage, apoplexy	64	1			1		1			2		1	
Paralysis without specified cause	66												
Other diseases of the nervous system	74											1	
Diseases of the ears	76	1											
Acute endocarditis	78							2		1	1	1	1
Organic diseases of the heart	79				1	1	1						2
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Haemorrhage; other diseases of the circulatory system	85											1	
Acute bronchitis	89		1		1							1	
Bronchopneumonia	91		2	1									
Pneumonia	92		4	6				1		1	1	1	
Pleurisy	93												
Pulmonary congestion, pulmonary apoplexy	94			1								1	
Asthma	96												
Pulmonary emphysema	97								1				
Diseases of the pharynx	100							1					
Ulcer of the stomach	102												1
Other diseases of the stomach (cancer excepted)	103		4										
Diarrhoea and enteritis (Under 2 years)	104	1	18										
Diarrhoea and enteritis (2 years and over)	105			2	1					1	1	1	
Appendicitis and typhlitis	106				2	1	1			1		1	
Hernias, intestinal obstructions	109												
Cirrhosis of the liver	113												
Other diseases of the liver	115												1
Acute nephritis	119						1				1		
Bright's disease	120		1								3	1	

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							2	1		2			1										1	2		
			1					1		1													1			
							1	4	1	3					1						1			5		
								3	1	3														3		
								2		2														2		
				1			1			1													1			
								1		1														1		
		1		1				2		1				1									1		1	
							1			1														1		
	1	2	2				6	11	5	13			1	2		1							8	4	5	
							1			1														1		
							1	2		3														3		
							1			1														1		
1	1	9	5				8	9	1	10	1			4					1			1	7	3	7	
1	1	1	2				4	2		5			1										5	1		
1								1		1													1			
		1	1					2		2													1	1		
				2				2		1			1												2	
							2			2													2			
								2		2													1	1		
		1					1				1														1	
							1									1							1			
							1			1													1			
								1		1														1		
							1			1														1		
2		3	10	2	1		9	15	1	15	2		1	4			1					1	11	6	7	
	1	1	1				2	1	1	2												1	2	1		
							1			1														1		
								1		1														1		
	1	1	3	2			7	6	4	9	1	1		2									3	5	5	
		1	3	4			7	6	2	9	1		1	1	1								5	4	4	
1			2				1	2		3													2		1	
	1	2	1				3	1	1	3				1									2		2	
							1			1														1		
							2	1	1	2									1				1	2		
		1	1				3	2		5														4	1	
			3	2			11	8	4	18			1										2	12	5	
1								1		1													1			
1		1					2	2		1	1			1	1								2	1	1	
1								1	1	1													1			
								1	1	1													1			
								1		1														1		
							1					1													1	
		1					3	2	2	4			1											5		
							11	8	2	19														19		
			1				2	5	1	5						1			1					5	2	
							3	3		5				1									1	5		
		1		1			1	1		2														2		
		1						1						1											1	
		1					2		1	1		1											1		1	
		2		1			2	3	1	3				1		1							4		1	
1	1	4	8	2			9	12	4	14		1	1	3							2		5	10	5	1

TABLE 42.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,
THE YEAR ENDING

DEATHS IN PLAINFIELD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Other diseases of the kidneys and annexa	122	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the bladder	124	..	....	..	..	..	..	..	..	..	..	..	..
Puerperal haemorrhage	135	..	....	..	..	..	..	..	1	1	..	..	..
Other accidents of labor	136	..	....	..	..	..	..	..	..	1	..	..	..
Puerperal septichaemia	137	..	....	..	..	..	..	..	..	1	..	..	..
Diseases of the bones (tuberculosis excepted)	146	..	....	1	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	..	....	1	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	17	2	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	1	..	..	..	1	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	1	..	..	..
Accidental drowning	169	..	....	..	1	..	..	..	..	..	..	..	..
Traumatism by fall	172	..	....	..	..	..	..	..	1	..	..	1	..
Traumatism by machines	174	..	....	..	..	..	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	1	1	..	1	1	1	1	2	1
Injuries by animals	176	..	....	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	3	1	..	..	..	..	..	..	..	..	..

Total deaths, 298. Death-rate, 13.94

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
				1				1		1															1	
			1				1			1													1			
								2		1				1									2			
								1							1								1			
								1							1								1			
							1			1														1		
							1			1														1		
							9	10	2	19														19		
			1	1				2		1										1					2	
1							2	1		2							1						2	1		
							1			1													1			
							1			1														1		
		1					2	1		2									1				2	1		
1							1			1													1			
	1						9	1		7							1	1				1	7	3		
1							1			1														1		
							2	2		3									1					4		

TABLE 43.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN PRINCETON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Diphtheria and croup	9	..	....	1	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	....	..	..	1	1	1	1	..	..	..	..
Syphilis	37	..	....	..	..	..	..	..	..	1	..	..	..
Cancer and other malignant tumors of the stomach, liver	40	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the female genital organs	42	..	....	..	..	..	..	..	..	..	..	..	..
Diabetes	50	..	....	..	..	..	..	..	..	..	..	..	..
Alcoholism (acute or chronic)	56	..	....	..	..	..	..	..	..	1	..	..	..
Cerebral haemorrhage, apoplexy	64	..	....	..	..	..	..	..	..	..	..	1	..
Convulsions of infants	71	..	....	1	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	....	..	1	..	..	..	..	..	..	..	..
Organic diseases of the heart	79	..	....	..	..	..	..	..	..	1	..	2	1
Diseases of the arteries, atheroma aneurysm, etc.	81	..	....	..	..	..	..	..	..	..	..	..	..
Acute bronchitis	89	..	....	1	..	1	..	..	..	..	..	..	..
Bronchopneumonia	91	..	1	..	..	..	..	..	..	..	..	..	..
Pneumonia	92	..	2	..	..	..	..	..	..	..	..	..	..
Other diseases of the respiratory system (tuberculosis excepted)	98	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted)	103	..	....	1	..	..	..	..	..	..	..	1	..
Diarrhoea and enteritis (Under 2 years)	104	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	....	..	..	..	..	..	..	..	1	..	..
Other diseases of the intestines	110	..	....	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	..	....	..	..	..	..	..	..	..	..	..	..
Uterine tumor (noncancerous)	129	..	....	..	..	..	..	..	..	..	..	..	..
Acute abscess	144	..	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	4	....	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	..	1	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Accidental drowning	169	..	....	..	..	..	..	..	1	..	..	..	..
Traumatism by fall	172	..	....	..	..	..	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	..	..	..	..	..	..	1	..	..

Total deaths, 65. Death-rate, 13.60.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
1							4	1	2	3			1		1								2	3		
							1			1													1			
			1					1		1															1	
		1						1		1															1	
			1					1		1															1	
1							2		2	2													1	1		
		1	3	1			1	5	1	4				1			1						2		4	
							1			1														1		
								1		1														1		
	8	2	1	2			5	7	3	8	1		1	1	1								5	1	6	
		1	1	1	1		2	2		4													2		2	
								2	1	2														2		
								1	1	1														1		
	1						2	1		3														3		
1								1		1														1		
			1		1		3	1		2			1	1									2	1	1	
							1		1	1														1		
		1						2	1	2													2			
			1					1						1											1	
1		1					2		2	1												1			2	
		1						1		1															1	
		1						1		1															1	
							3	1	1	4														4		
							1			1														1		
				1				1		1													1			
							1		1	1													1			
				2				2	1	2															2	
							1			1													1			

TABLE 44.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN RAHWAY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1	..	....	..	..	..	1	1	..	..	..	..	..
Malaria	4	..	1	..	..	..	..	..	..	..	..	..	..
Measles	6	..	1	1	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	....	..	..	..	2	1	2	1	1	3	..
Disseminated tuberculosis	35	..	....	..	..	..	..	..	1	..	..	..	..
Syphilis	37	..	1	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the stomach, liver	40	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the female genital organs	42	..	....	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the breast	43	..	....	..	..	..	..	..	..	..	1	..	..
Cancer and other malignant tumors of the skin	44	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of other organs or of organs not specified	45	..	....	..	..	..	..	..	..	..	..	..	..
Diabetes	50	..	....	..	..	..	..	..	..	..	..	1	..
Anaemia, chlorosis	54	..	....	..	..	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	....	..	..	..	..	..	..	..	..	..	..
Paralysis without specified cause	66	..	....	..	..	..	..	..	..	..	..	..	..
Epilepsy	69	..	....	..	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	....	..	..	..	1	..	..	..	..	..	..
Organic disease of the heart	79	..	....	..	..	..	1	..	..	..	1	..	..
Angina pectoris	80	..	....	..	..	..	..	..	..	..	..	..	..
Diseases of the arteries, atheroma anourysm, etc.	81	..	....	..	..	..	..	..	..	..	..	..	..
Embolism and thrombosis	82	..	....	..	..	..	..	..	..	..	..	1	..
Acute bronchitis	89	..	1	..	..	..	..	..	..	..	..	..	..
Bronchopneumonia	91	1	2	..	..	..	..	..	..	..	..	..	..
Pneumonia	92	..	1	..	..	..	1	..	..	..	..	..	..
Pleurisy	93	..	....	..	2	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years)	104	..	8	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	....	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	..	....	..	..	..	..	..	..	1	..	..	2
Calculi of the urinary passages	123	..	....	..	..	..	..	..	..	..	..	..	..
Salpingitis and other diseases of the female genital organs	132	..	....	..	..	..	..	..	..	..	..	..	1
Other accidents of labor	136	..	....	..	..	..	..	..	..	..	1	..	..
Puerperal phlegmasia alba dolens, embolus, sudden death	139	..	....	..	..	..	..	..	1	..	..	..	..
Other diseases of the skin and annexa	145	..	1	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	1	....	..	..	..	..	..	..	..	..	..	..
Congenital dibility, icterus and sclerema	151	5	....	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	1	....	..	..	..	..	..	..	..	..	..	..
Senilty	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	..	..	..	..
Accidental drowning	169	..	....	..	1	..	..	..	..	..	..	..	..
Traumatism by firearms	170	..	....	..	..	1	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	..	..	..	1	1	..	2	..	..

Total deaths, 134. Death-rate, 13.94.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
1	..	..	..	..	..	..	1	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..
..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
2	..	1	1	..	..	..	7	7	..	12	..	..	..	..	..	..	1	1	..	..	..	..	10	3	1	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	2	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
2	..	3	3	..	..	..	4	4	1	5	..	..	1	2	..	..	..	..	..	..	..	..	5	1	2	..
..	..	..	1	2	..	..	1	3	..	3	..	..	..	1	..	..	..	..	..	..	..	..	2	1	1	..
..	1	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..
..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..
..	..	1	1	..	..	..	1	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
1	..	..	1	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..
1	..	2	7	..	..	..	6	4	..	8	..	..	1	..	..	..	..	..	1	..	..	..	5	..	5	..
..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..
1	3	1	2	2	..	..	6	4	..	7	..	..	1	1	1	..	..	..	..	..	..	..	7	1	2	..
2	..	..	2	..	..	..	3	4	..	4	..	..	1	1	1	..	..	..	..	..	..	..	4	1	2	..
..	..	..	1	1	..	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	1	..
..	..	..	..	2	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	1	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..
..	..	..	1	..	..	..	1	3	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..
..	2	1	2	..	..	..	2	5	1	7	..	..	..	..	..	..	..	..	..	..	..	..	2	3	2	..
..	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
..	..	..	..	..	..	..	4	4	1	8	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	..
1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
..	2	2	3	1	..	..	5	6	..	7	..	..	..	3	..	..	..	..	..	..	..	1	5	4	2	..
..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	1	4	2	5	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..
..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	..	2	..	..	..	..	6	..	..	3	..	..	..	1	..	..	2	..	..	..	..	..	4	..	2	..

TABLE 45.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN RED BANK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Malaria	4												
Diphtheria and croup	9			1									
Dysentery	14			1									
Purulent infection and septichaemia	20												
Tetanus	24		1										
Tuberculosis of the lungs	28			1		2	1	3	3	1	2	1	
Tuberculous meningitis	30		2										
Syphilis	37		1										
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the female genital organs	42												1
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												1
Anaemia, chlorosis	54												
Alcoholism (acute or chronic)	56										2		
Simple meningitis	61		1										
Cerebral haemorrhage, apoplexy	64										2		
Softening of the brain	65												1
Paralysis without specified cause	66												
Convulsions of infants	71	1											
Acute endocarditis	78							1					
Organic disease of the heart	79												
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89		1	1									
Bronchopneumonia	91		1	2									
Pneumonia	92			4									1
Pleurisy	93											1	
Other diseases of the stomach (cancer excepted)	103	1											
Diarrhoea and enteritis (Under 2 years)	104		9										
Other diseases of the intestines	110												
Simple peritonitis (nonpuerperal)	117												
Acute nephritis	119												
Bright's disease	120							1			1	2	1
Congenital debility, icterus and sclerema	151	2											
Other diseases peculiar to early infancy	152		1										
Senility	154												
Suicide by hanging or strangulation	157												1
Accidental drowning	169				1								
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175							1					

Total deaths, 121. Death-rate, 15.41.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	1	..	1	..	...	...	...	2	....	2	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1	...
..	..	..	..	..	...	...	...	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	1	..	...	...	...	2	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1	...
1	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
..	..	..	..	..	...	...	...	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
2	1	..	..	..	...	...	7	10	6	12	..	..	1	1	2	1	..	..	..	..	..	..	7	10	...	...
..	..	..	..	..	...	...	2	...	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	2	...	...
..	..	..	..	..	...	...	1	...	1	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	1	1	1	..	...	...	3	...	....	3	..	..	..	..	..	..	..	..	..	..	..	..	1	...	2	...
..	..	..	..	..	...	...	...	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	1	..	...	...	...	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	1	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	1	..	..	...	...	1	1	....	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	...	...
..	1	..	..	..	...	...	...	1	....	...	..	..	..	..	..	1	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	2	...	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	2	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	1	2	4	5	1	...	6	9	4	14	..	..	..	1	..	..	..	..	..	..	..	..	4	2	9	...
..	..	..	1	..	...	...	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1	...
..	..	2	1	1	...	...	2	2	1	4	..	..	..	..	..	..	..	..	..	..	..	..	...	1	3	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	1	..	1	..	...	...	1	2	....	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	...	...
1	3	1	2	..	...	...	2	5	....	6	1	..	..	..	..	..	..	..	..	..	..	..	4	...	3	...
..	..	..	1	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
1	..	..	..	1	...	...	2	...	....	2	..	..	..	..	..	..	..	..	..	..	..	..	2	...	...	...
..	..	..	1	..	...	...	3	...	....	3	..	..	..	..	..	..	..	..	..	..	..	..	...	3	...	...
1	..	..	..	..	...	...	1	3	1	4	..	..	..	..	..	..	..	..	..	..	..	..	...	4	...	...
..	..	..	1	..	...	...	3	3	3	6	..	..	..	..	..	..	..	..	..	..	..	..	1	5	...	...
1	..	1	..	..	...	...	2	1	1	2	..	..	1	..	..	..	..	..	..	..	..	..	3	...	...	...
..	..	..	..	..	...	...	...	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	4	5	2	9	..	..	..	..	..	..	..	..	..	..	..	..	...	9	...	...
..	..	1	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	1	..	..	...	...	...	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	...
1	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	1	2	..	1	1	...	5	5	2	8	..	..	..	2	..	..	..	..	..	..	..	..	5	3	2	...
..	..	..	..	..	...	...	1	1	....	2	..	..	..	..	..	..	..	..	..	..	..	..	...	2	...	...
..	..	..	..	..	...	...	...	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	2	...	...	2	1	2	..	..	..	..	..	..	..	..	..	..	..	..	...	...	2	...
..	..	..	..	..	...	...	1	...	....	...	..	..	1	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...

TABLE 46.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES. THE YEAR ENDING

DEATHS IN RIDGEWOOD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Scarlet fever	7				1								
Purulent infection and septichaemia	20										1		
Tuberculosis of the lungs	28									1		2	
Acute miliary tuberculosis	29											1	
Tuberculous meningitis	30			1									
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of the skin	44												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Cerebral haemorrhage, apoplexy	64											2	
Softening of the brain	65												
Paralysis without specified cause	66												
Pericarditis	77												
Acute endocarditis	78												
Organic diseases of the heart	79											1	
Diseases of the arteries, atheroma aneurysm, etc.	81												
Bronchopneumonia	91												
Pneumonia	92										1		
Other diseases of the stomach (cancer excepted)	103				1								
Diarrhoea and enteritis (Under 2 years)	104		1										
Hernias, intestinal obstructions	109												
Acute nephritis	119				1								
Bright's disease	120							1					
Diseases of the bladder	124												
Congenital debility, icterus, and sclerema	151	1											
Traumatism by fall	172												
Electricity (lightning excepted)	181												

Total deaths, 76. Death-rate, 12.69.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
		1					1	1					1								1		1	1		
								3		3													3			
								1		1														1		
							1			1														1		
	1		1				1	1		1	1												1		1	
				1				1						1											1	
		2						2		2															2	
			1					1						1											1	
				1				1						1											1	
1	1	3	4				4	7		5			2	3	1								4	3	4	
1								1		1													1			
	1	1	2	1			1	4		2			1	2									1	1	3	
			1					1		1															1	
		1	1					2		2														1	1	
	1	1	4		1		6	2		5				2		1							3	3	2	
				2			2			2													1		1	
					1		1			1													1			
	1	3	2				2	5		2				4						1			3	1	3	
1			1				1	2		3													1	2		
								1		1														1		
		1	1				2			1				1											2	
			1				1	1		1				1										1	1	
		4	2	1	1		5	4		5	1			2						1			2	2	5	
			1				1			1															1	
							1			1														1		
		2		1				3						3										2	1	
		1					1								1								1			

TABLE 46.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN RIDGEWOOD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Scarlet fever	7				1								
Purulent infection and septichaemia	20										1		
Tuberculosis of the lungs	28									1		2	
Acute miliary tuberculosis	29											1	
Tuberculous meningitis	30			1									
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of the skin	44												
Cancer and otner malignant tumors of other organs or of organs not specified	45												
Cerebral haemorrhage, apoplexy	64											2	
Softening of the brain	65												
Paralysis without specified cause	66												
Pericarditis	77												
Acute endocarditis	78												
Organic diseases of the heart	79											1	
Diseases of the arteries, atheroma aneurysm, etc.	81												
Bronchopneumonia	91												
Pneumonia	92										1		
Other diseases of the stomach (cancer excepted)	103				1								
Diarrhoea and enteritis (Under 2 years)	104		1										
Hernias, intestinal obstructions	109												
Acute nephritis	119				1								
Bright's disease	120							1					
Diseases of the bladder	124												
Congenital debility, icterus, and sclerema	151	1											
Traumatism by fall	172												
Electricity (lightning excepted)	181												

Total deaths, 76. Death-rate, 12.69.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	1	...	...
...	...	...	...	...	...	...	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	1	...	1	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
...	...	2	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
1	1	3	4	...	...	...	4	7	...	5	...	...	2	3	1	...	...	...	...	...	...	...	4	3	4	...
1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	1	1	2	1	...	...	1	4	...	2	...	...	1	2	...	...	...	...	...	...	...	...	1	1	3	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	1	1	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
...	1	1	4	...	1	...	6	2	...	5	...	...	...	2	...	1	...	...	...	...	...	...	3	3	2	...
...	...	...	...	2	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	1	3	2	...	...	...	2	5	...	2	...	...	...	4	...	...	...	...	...	1	...	...	3	1	3	...
1	...	...	1	...	...	...	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	1	1	...	...	...	2	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	1	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...
...	...	4	2	1	1	...	5	4	...	5	1	...	...	2	...	...	...	...	...	1	...	...	2	2	5	...
...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	2	...	1	...	...	...	3	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	2	1	...
...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...

TABLE 47.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES. THE YEAR ENDING

DEATHS IN ROOSEVELT.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6			1									
Whooping cough	8		2	1									
Diphtheria and croup	9			1									
Tuberculosis of the lungs	28	1	1					1					
Tuberculous meningitis	30			1									
Tuberculosis of other organs	34			1									
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Other general diseases	55	1											
Cerebral haemorrhage, apoplexy	64												
Convulsions of infants	71		1										
Acute bronchitis	89	1	2										
Bronchopneumonia	91	1	2										
Pneumonia	92	1	3	3									
Pulmonary congestion, pulmonary apoplexy	94										1		
Diarrhoea and enteritis (Under 2 years)	104	1	18	9									
Diarrhoea and enteritis (2 years and over)	105			1									
Appendicitis and typhlitis	108				1								
Hernias, intestinal obstructions	109												1
Other diseases of the intestines	110		1				1						
Bright's disease	120												
Accidents of pregnancy	134									1			
Puerperal septichaemia	137							1					
Puerperal albuminuria and convulsions	138										1		
Congenital malformations (stillbirths not included)	150	1	1										
Congenital debility, icterus and sclerema	151	6											
Other diseases peculiar to early infancy	152		2										
Senility	154												
Suicide by firearms	159				1			1					
Burns (conflagration excepted)	167		1	2	1	1							
Traumatism by fall	172												1
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175							1	2				
Cause of death not specified or ill-defined	189	1	2										

Total deaths, 92. Death-rate 15.90.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1														1	3	
							1	2		3																
								1		1														1		
							2	1		2									1				1	2		
								1		1														1		
							1			1														1		
1							1								1								1			
							1			1														1		
			1					1								1									1	
							1			1														1		
							1	2		3														3		
							2	1		3														3		
							7			7														7		
								1		1													1			
							16	12		27			1											28		
		1					1	1		1			1											1	1	
							1						1											1		
								1		1													1			
							1	1		1									1					2		
		1	1				1	1									1					1			2	
								1									1						1			
								1							1								1			
								1											1				1			
							1	1		2														2		
							2	4		6														6		
							1	1		2														2		
				1				1						1											1	
							2			1							1							2		
							1	4		5														5		
							1			1													1			
							3			2									1				2	1		
							1	2		3														3		

TABLE 48.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN RUTHERFORD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1									1			
Whooping cough	8		2										
Influenza	10												
Tuberculosis of the lungs	28							1	1				1
Tuberculous meningitis	30		1	1	1								
Abdominal tuberculosis	31							1					
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45						1						
Other tumors (tumors of the female genital organs excepted)	46												
Diabetes	50												
Cerebral haemorrhage, apoplexy	64											1	
Softening of the brain	65												
Other diseases of the nervous system	74										1		
Pericarditis	77												
Acute endocarditis	78												
Organic diseases of the heart	79								1				1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89												
Pneumonia	92												1
Pleurisy	93												
Pulmonary congestion, pulmonary apoplexy	94	1											
Other diseases of the stomach (cancer excepted)	103												
Cirrhosis of the liver	113												
Acute nephritis	119											1	
Bright's disease	120												
Puerperal albuminura and convulsions	138											1	
Gangrene	142												
Congenital debility, icterus and sclerema	151	2											
Lack of care	153	1											
Senility	154												
Suicide by firearms	159								1				
Other acute poisonings	165												
Burns (conflagration excepted)	167			1									
Absorption of deleterious gases (conflagration excepted)	168					1							
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175										2		
Injuries by animals	176												

Total deaths, 83. Death-rate, 10.67.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1													1			
								2		2														2		
				1				1		1															1	
							2	1		1		1			1								3			
							1	2	1	3														3		
							1			1															1	
		1						1		1															1	
		1	2				2	1		3													2		1	
1								1		1													1			
	1							1						1									1			
								1		1														1		
			1					1		1													1			
		1						1		1															1	
	1	2					3	1		3	1												2		2	
			1					1		1															1	
								1		1													1			
			1				1				1												1			
		1		1			1	1		1				1									1	1		
	1	4	2	1			4	6		6		1	1	1			1						5	2	5	
		3					3			3													2		1	
		2		3			2	3		3				1							1		1	1	3	
				1				1					1												1	
		2					1	2		3													1	1	1	
	1						1			1													1			
							1			1														1		
1			1					2		1			1										1		1	
		1						1		1													1			
							1													1						
		3	2	1			1	5		5			1										1	1	4	
								1		1													1			
				1				1			1														1	
							2			2														2		
								1		1														1		
		1	1					2		1				1										1	1	
1							1	1		2													1	1		
	1							1		1															1	
							1			1														1		
								1		1														1		
		1		1			1	1		2													1		1	
		2	1				5			1			1		1		2						2	1	1	1
			1				1				1														1	

TABLE 49.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN SALEM CITY.	AGE PERIODS.											
	Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Malaria. 4	..	..	..	..	..	..	..	..	..	..	..	..
Influenza. 10	..	..	..	..	..	..	..	..	..	..	..	..
Tetanus. 24	1	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs. 28	..	..	..	1	..	1	1	2	2	..	1	1
Abdominal tuberculosis. 31	..	..	1	..	..	..	..	..	..	..	..	..
Syphilis. 37	1	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the stomach, liver. 40	..	..	..	..	..	..	..	..	..	..	..	1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum. 41	..	..	..	..	..	..	..	..	..	..	1	..
Cancer and other malignant tumors of the female gential organs. 42	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the breast. 43	..	..	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of other organs or of organs not specified. 45	..	..	..	..	..	..	..	..	..	..	..	1
Diabetes. 50	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism (acute or chronic). 56	..	..	..	..	..	..	..	..	..	..	..	..
Simple meningitis. 61	..	..	1	..	..	..	..	..	..	..	..	..
Other diseases of the spinal cord. 63	..	..	..	..	..	..	..	1	..	..	..	..
Cerebral haemorrhage, apoplexy. 64	..	..	..	..	..	..	1	..	..	..	..	..
Paralysis without specified cause. 66	..	..	..	..	..	..	..	..	..	1	..	..
Acute endocarditis. 78	..	..	..	..	..	..	..	..	..	..	..	..
Organic diseases of the heart. 79	1	..	..	1	..	..	..	..	..	..	..	1
Angina pectoris. 80	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the arteries, atheroma aneurysm, etc. 81	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the veins (varices, haemorrhoids, phlebitis, etc.). 83	..	..	..	..	..	..	..	..	..	..	..	..
Acute bronchitis. 89	..	1	..	..	..	..	..	..	..	..	..	..
Bronchopneumonia. 91	..	..	1	..	..	..	..	..	..	..	..	..
Pneumonia. 92	..	1	1	..	1	1	..	..	..	..	..	..
Gangrene of the lung. 95	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the stomach (cancer excepted). 103	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (Under 2 years). 104	1	5	1	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over). 105	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of the intestines. 110	..	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis of the liver. 113	..	..	..	..	..	..	..	..	..	..	..	1
Acute nephritis. 119	..	..	..	..	..	..	..	..	..	..	..	..
Bright's disease. 120	..	..	..	..	..	..	..	..	..	..	..	1
Diseases of the bladder. 124	..	..	..	..	..	..	..	..	..	..	..	..
Uterine tumor (noncancerous). 129	..	..	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema. 151	4	..	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy. 152	1	..	..	..	..	..	..	..	..	..	..	..
Senility. 154	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by poison. 155	..	..	..	..	..	..	..	..	1	..	..	..
Other acute poisonings. 165	..	..	..	..	..	..	..	..	..	..	..	1
Accidental drowning. 169	..	..	..	..	1	..	1	..	..	..	..	1
Traumatism by fall. 172	..	..	..	..	..	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.). 175	..	..	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined. 189	..	2	..	..	..	..	..	..	..	..	..	..

Total deaths, 117. Death-rate, 17.51.

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
	1							1					1												1	
		1						1		1													1			
							1		1	1														1		
	1	1	1				6	6	3	12													6	5	1	
								1		1														1		
								1	1	1														1		
	1	2	1	1			4	2		5				1									4		2	
							1			1													1			
1			1	1				3		3													1		2	
			1					1		1															1	
								1		1													1			
				2			1	1		1			1										1		1	
		1					1															1				1
								1		1														1		
							1			1														1		
	1	3	7	2			13	1	2	12			1									1	9	2	3	
	1	1	1	1			1	4	1	4				1									4		1	
				1			1			1															1	
		1	4	1			5	4	2														2	3	4	
		1					1			1													1			
			1				1			1													1			
			1					1	1	1															1	
								1		1														1		
							1			1														1		
			1				1	4		5													1	4		
			1				1			1															1	
								1		1														1		
							3	4	2	7														7		
			1				1			1													1			
	1						1		1	1													1			
							1							1									1			
			1				1			1															1	
1	2	2	3	1			5	5	2	8			2										6	2	2	
				1			1			1															1	
1								1		1															1	
							2	2	2	4														4		
							1			1														1		
			3	1				4		2				2									1	1	2	
							1			1													1			
								1		1													1			
							2	1	1	1												2		2		1
				2			1	1		1				1									1		1	
				1			1			1															1	
							2		1	2														2		

TABLE 50.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES,
THE YEAR ENDING

DEATHS IN SOMERVILLE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five.	Five to ten.	Ten to fifteen.	Fifteen to twenty.	Twenty to twenty-five.	Twenty-five to thirty.	Thirty to thirty-five.	Thirty-five to forty.	Forty to forty-five.	Forty-five to fifty.
Malaria	4												1
Measles	6			1									
Whooping cough	8		1	2	1								
Diphtheria and croup	9				1								
Including: Croup	9A			1									
Dysentery	14			1									
Tuberculosis of the lungs	28								1	1	1		2
Cancer and other malignant tumors of the stomach, liver	40					1							
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												
Diabetes	50												
Alcoholism (acute or chronic)	56												
Simple meningitis	61												1
Cerebral haemorrhage, apoplexy	64											1	
Softening of the brain	65												
Paralysis without specified cause	66												
Other forms of mental alienation	68												
Epilepsy	69									1			
Other diseases of the nervous system	74										1		
Acute endocarditis	78				1								1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89												
Bronchopneumonia	91		1	1									
Pneumonia	92			1					1			1	
Pleurisy	93												
Pulmonary congestion, pulmonary apoplexy	94												
Other diseases of the stomach (cancer excepted)	103		1										
Diarrhoea and enteritis (Under 2 years)	104		1										
Diarrhoea and enteritis (2 years and over)	105												
Other diseases of the liver	115												1
Acute nephritis	119										1		
Bright's disease	120											1	
Diseases of the prostate	126												
Congenital debility, icterus and sclerema	151	4											
Other diseases peculiar to early infancy	152	1											
Senility	154												
Suicide by firearms	159									1			
Suicide by cutting or piercing instruments	160									1			
Burns (conflagration excepted)	167								1				
Traumatism by firearms	170												1
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175				1			1	1		1	2	
Cause of death not specified or ill-defined	189	1											

Total deaths, 96. Death-rate, 18.57.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
								1		1														1		
							2	2	2	4														4		
							1			1														1		
								1		1														1		
							1			1														1		
1	1						5	2	1	6	1												6	1		
1				1			2	1		2							1						1	1	1	
		1			1			2		2														2		
		1						1		1														1		
		1					1							1									1			
			1				1							1									1			
							1														1		1			
		2	1	4			6	2		5	1		1	1									7		1	
			1	1			1	1		2															2	
		1	1					2		2														1	1	
				1			1			1															1	
							1			1														1		
							1			1														1		
1		1	1				4	1		3			2										2	1	2	
1							1			1														1		
				1			1		1	1															1	
				1			1			1															1	
			3	1			4	2	1	5	1												1	2	3	
		1					1	3	1	4													2	2		
				1				1		1															1	
			1					1		1															1	
			1					2		1			1											1	1	
							1			1														1		
				1				1		1													1			
							1			1															1	
							1			1													1			
1			2	2			3	3	1	3				1					1			1	2	1	3	
			1				1			1													1			
							2	2		4														4		
							1			1														1		
			1	3			3	1		2						1						1	2		2	
							1															1				1
							1			1													1			
							1								1								1			
							1			1													1			
		1		1			1	1		1											1		1		1	
1							6	1		4	1					1			1				6	1		
							1			1														1		

TABLE 51.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN SOUTH AMBOY.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Malaria	4											1	
Measles	6		1	2	1								
Whooping cough	8		1										
Influenza	10												
Dysentery	14												
Tuberculosis of the lungs	28					1			1	2			
Tuberculosis of other organs	34				1								
Cancer and other malignant tumors of the stomach, liver	40												
Alcoholism (acute or chronic)	56											1	
Simple meningitis	61			2					1				
Cerebral haemorrhage, apoplexy	64			1									
Paralysis without specified cause	66												
Acute endocarditis	78												
Organic diseases of the heart	79						1				1	1	1
Acute bronchitis	89		1										1
Chronic bronchitis	90												
Bronchopneumonia	91		3	1									
Pneumonia	92												
Pulmonary congestion, pulmonary apoplexy	94												
Other diseases of the stomach (cancer excepted)	103		1										
Diarrhoea and enteritis (Under 2 years)	104		6	2									
Diarrhoea and enteritis (2 years and over)	105												
Simple peritonitis (nonpuerperal)	117						1						
Bright's disease	120						1		1				
Diseases of the bladder	124												
Other accidents of labor	136									1			
Congenital debility, icterus and sclerema	151	7											
Senility	154												
Suicide by hanging or strangulation	157										1		
Suicide by drowning	158											1	
Burns (conflagration excepted)	167			2									
Accidental drowning	169								1	1	1	1	1
Traumatism by fall	172											1	
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175						1	1		1	1		
Homicide by other means	184												

Total deaths, 100. Death-rate, 13.69.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedent "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1															1	
							3	1		3							1							4		
							1			1														1		
			1				1							1									1			
			1				1				1														1	
							3	1		4													2	2		
							1			1														1		
		1					1			1													1			
								1		1													1			
							1	2		3													1	2		
	1	1	1		1		2	3		4				1									1	2	2	
1			1				1	1		2													2			
1								1									1						1			
4		6	1				7	8		5	1		2	7									8	2	5	
							2			2														2		
			1				1			1													1			
							3	1		4														4		
		3	1	1			2	3		4				1									1	2	2	
			1				1			1													1			
1							2			2													1	1		
							5	3		8														8		
		1					1							1										1		
								1		1														1		
		2					2	2		4													1	2	1	
	1						1			1															1	
								1		1													1			
							4	3		7														7		
		1		1			1	1			1			1									2			
							1											1						1		
							1			1														1		
			1				1	2		2				1										2	1	
	1	1					5	2		3				1			1	2					4	2	1	
							1						1										1			
	1						5			4				1									2	2	1	
	1						1						1										1			

TABLE 52.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN SOUTH ORANGE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Scarlet fever	7	..	....	1	..	..	..	..	..	..	..	..	..
Diphtheria and croup	9	..	....	1	..	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	....	..	..	..	1	..	..	1	1	..	..
Abdominal tuberculosis	31	..	....	1	..	..	..	..	..	..	..	..	..
Disseminated tuberculosis	35	..	....	..	..	..	..	1	..	..	..	..	..
Cancer and other malignant tumors of the stomach, liver	40	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the breast	43	..	....	..	..	..	..	..	..	..	1	..	..
Cancer and other malignant tumors of other organs or of organs not specified	45	..	....	..	..	..	..	..	..	..	..	..	..
Chronic rheumatism and gout	48	..	....	..	..	..	..	..	..	..	..	..	..
Diabetes	50	..	....	1	..	..	..	..	..	..	..	..	..
Exophthalmic goitre	51	..	....	..	..	..	..	..	..	..	..	..	1
Other general diseases	55	1	....	..	1	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	....	..	..	..	..	..	..	..	1	..	..
Diseases of the ears	76	..	....	..	..	..	..	..	..	..	..	..	..
Acute endocarditis	78	..	....	..	..	..	..	..	..	..	..	..	..
Organic diseases of the heart	79	..	....	..	..	..	..	..	..	..	..	..	1
Bronchopneumonia	91	..	1	..	..	..	..	..	..	..	..	..	..
Pneumonia	92	1	1	..	1	..	..	..	..	..	1	..	2
Diarrhoea and enteritis (Under 2 years)	104	1	2	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	....	..	..	..	..	..	..	..	..	..	..
Bright's disease	120	..	....	..	..	..	..	..	..	..	..	1	..
Puerperal phlegmasia alba dolens, embolus, sudden death	139	..	....	..	..	..	..	..	..	..	1	..	..
Congenital debility, icterus and sclerema	151	4	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	..	..	1	..	..	..
Traumatism by fall	172	..	....	..	..	..	..	..	..	..	..	..	..

Total deaths, 63. Death-rate, 9.77.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	..	..	..	..	...	...	...	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	1	..	...	...	2	2	...	2	..	..	..	1	..	1	..	..	..	..	..	..	2	2	...	...
..	..	1	..	..	...	...	...	2	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	...	...
..	..	..	..	..	...	...	...	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
1	..	..	2	..	...	...	2	1	...	3	..	..	..	..	..	..	..	..	..	..	..	..	3	...	...	...
..	..	..	..	..	...	...	...	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
1	..	..	1	..	...	...	...	2	...	2	..	..	..	..	..	..	..	..	..	..	..	..	...	...	2	...
..	..	1	..	..	...	...	...	1	...	...	..	..	..	..	1	..	..	..	..	..	..	..	...	...	1	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	...	...	...	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	1	..	...	...	...	3	...	2	..	..	..	1	..	..	..	..	..	..	..	..	...	2	1	...
..	..	2	1	..	...	...	2	2	1	3	..	..	..	1	..	..	..	..	..	..	..	..	4	...	...	...
..	..	..	..	..	...	...	1	...	...	...	..	..	..	1	..	..	..	..	..	..	..	..	1	...	...	...
..	..	1	1	1	...	...	2	1	...	2	1	..	..	..	..	..	..	..	..	..	..	..	1	...	2	...
1	1	..	2	1	...	...	4	2	...	3	1	..	1	..	1	..	..	..	..	..	..	..	1	1	4	...
..	..	..	1	..	...	...	1	1	...	2	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1	...
..	1	..	1	1	...	...	6	3	...	8	..	..	..	..	..	1	..	..	..	..	..	..	4	4	1	...
..	..	..	..	..	...	...	2	1	2	3	..	..	..	..	..	..	..	..	..	..	..	..	...	3	...	...
..	..	..	1	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
1	..	1	3	..	...	...	4	2	...	3	..	..	1	2	..	..	..	..	..	..	..	..	...	2	4	...
..	..	..	..	..	...	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	1	...	...	...
..	..	..	..	..	...	...	2	2	...	4	..	..	..	..	..	..	..	..	..	..	..	..	...	4	...	...
..	..	..	..	..	...	...	1	...	...	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1	...	...
..	..	..	..	..	1	...	1	...	...	...	..	..	1	..	..	..	..	..	..	..	..	..	...	...	1	...

TABLE 53.— TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN SUMMIT.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1				1								
Diphtheria and croup	9			1	1	1							
Tetanus	24												1
Tuberculosis of the lungs	28						2		2	5	2	3	
Tuberculous meningitis	30			1									
Tuberculosis of other organs	34								2				
Cancer and other malignant tumors of the stomach, liver	40												2
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												1
Diabetes	50												
Anaemia, chlorosis	54												
Alcoholism (acute or chronic)	56										1		
Simple meningitis	61									1			
Including: Cerebrospinal fever	61A			1									
Other diseases of the spinal cord	63												
Cerebral haemorrhage, apoplexy	64							1					
Other forms of mental alienation	68												
Epilepsy	69												1
Convulsions of infants	71	1											
Diseases of the ears	76		1										
Acute endocarditis	78												
Organic diseases of the heart	79					1						1	1
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89	1		1									
Bronchopneumonia	91	1		1									
Pneumonia	92		1	2			1	1	1		1	1	
Ulcer of the stomach	102												
Other diseases of the stomach (cancer excepted)	103												
Diarrhoea and enteritis (Under 2 years)	104			1									
Simple peritonitis (nonpuerperal)	117								1				
Acute nephritis	119		1										
Bright's disease	120										1		
Diseases of the bladder	124												
Diseases of the prostate	126												
Accidents of pregnancy	134									1	1		
Puerperal septichaemia	137						1						
Acute abscess	144							1					
Diseases of the bones (tuberculosis excepted)	146					1							
Congenital debility, icterus and sclerema	151	5	1										
Senility	154												
Suicide by poison	155												
Suicide by firearms	159										1		
Other acute poisonings	165								1				
Burns (conflagration excepted)	167			1									
Traumatism by fall	172									1			
Traumatism by machines	174						1						
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175				1	2			1	2	2		

Total deaths, 139. Death-rate, 17.91.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
		1					1	3		3											1			3	1	
							1							1									1			
3		4					11	10		15	2		1			1		2					15	5	1	
								1		1														1		
							1	1	1	1					1								1		1	
1	1	2	1				3	4		5			1	1									4	1	2	
1								1		1													1			
								1		1													1			
		2					1	1		2													1		1	
	1	1					1	1	1	2													2			
1		1					3			3													3			
							1			1													1			
								1		1														1		
1								1		1													1			
		4					3	2		2				2	1								2	2	1	
			1					1													1				1	
								1		1														1		
							1			1														1		
							1			1														1		
			3	1			2	2		2				2									2		2	
		1	1	3			4	4	1	4				1					1	1	1		4	1	3	
		1						1			1												1			
1	1		2				3	1		1	1			1				1					2		2	
							2			2														2		
1							3	1		2				2									2	2		
			1				5	4		5				1	2							1	2	5	2	
	1						1			1													1			
	1			1	1		1	2		2	1												2		1	
							1			1														1		
								1		1													1			
		1					1	1		2													1	1		
		2	2	2			5	2		5				2									5		2	
	1		1				2			2													1		1	
		1					1							1											1	
								2		1					1								2			
								1													1			1		
							1								1									1		
								1		1														1		
							3	3	1	6														6		
				1				1						1											1	
		1						1		1														1		
							1			1													1			
							1								1								1			
								1		1														1		
1	1		1				3	1		1	1			1	1								3		1	
							1			1														1		
	1	1					8	2		6					3			1					4	6		

TABLE 54.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN TOWN OF UNION.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1												
Measles	6		1	2									
Scarlet fever	7			1									
Diphtheria and croup	9			1	2								
Dysentery	14		1										
Tuberculosis of the lungs	28		1			1	3	1	6	4	4	4	1
Tuberculous meningitis	30		2	2	1		1						
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40											1	1
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												1
Cancer and other malignant tumors of the female genital organs	42										1	1	
Cancer and other malignant tumors of the breast	43											1	
Cancer and other malignant tumors of the skin	44												
Other tumors (tumors of the female genital organs excepted)	46										1		
Leuchaemia	53					1							
Anaemia, chlorosis	54			1									
Simple meningitis	61		1		1								
Other diseases of the spinal cord	63							1					
Cerebral haemorrhage, apoplexy	64											1	
Softening of the brain	65												
Other forms of mental alienation	68							1					
Convulsions of infants	71	1	3										
Acute endocarditis	78			1	1				1			3	1
Organic diseases of the heart	79				1	1	1					3	1
Diseases of the arteries, atheroma aneurysm, etc.	81											1	
Chronic bronchitis	90												
Bronchopneumonia	91		2	3									
Pneumonia	92			1	1				2				
Ulcer of the stomach	102												
Diarrhoea and enteritis (Under 2 years)	104		6										
Diarrhoea and enteritis (2 years and over)	105			1									
Hernias, intestinal obstructions	109		1										
Other diseases of the intestines	110	1	1										
Acute yellow atrophy of the liver	111										1		
Cirrhosis of the liver	113											1	
Other diseases of the liver	115							1					
Acute nephritis	119		1										
Bright's disease	120					1			2	1			1
Other diseases of the uterus	130											1	
Accidents of pregnancy	134								1				
Puerperal septichaemia	137								1				
Other diseases of the skin and annexa	145												1
Congenital debility, icterus and sclerema	151	8	2										
Senility	154												
Suicide by poison	155							1		1			
Suicide by asphyxia	156											1	
Suicide by hanging or strangulation	157									1			
Suicide by firearms	159												
Absorption of deleterious gases (conflagration excepted)	168												1
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175											1	1
Cause of death not specified or ill-defined	189		1										

Total deaths, 207. Death-rate, 9.15.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
1								1					1										1			
								3		3														3		
								1		1														1		
							1	2		2						1								3		
		1					1	1		1			1										1	1		
2		2					16	13		19		1	5	1	1		1				1		16	11	2	
							4	2		5											1			6		
			1				1							1									1			
1	1	1	1				4	2		5					1								5		1	
								1			1												1			
	1	1						4		1	1		1				1						3		1	
								1						1									1			
1							1			1														1		
								1										1					1			
							1			1														1		
								1		1														1		
								2		1					1									2		
								1		1														1		
4	2	5	3	1			7	9		6			8	2									8		8	
		1	1					2		1			1												2	
							1			1														1		
							2	2		4														4		
	1	2	1				7	4		5		1	3	2									7	2	2	
1		4	1				6	7		9			2		1						1		8	5		
1				2			2	2		1			3										1		3	
			1					1							1										1	
			1				3	3		5			1										1	5		
2		5	1				8	4		5			6	1									4	4	4	
1								1										1					1			
							2	4		6														6		
		1	2				2	2		1			2								1		2	1	1	
				1				2		1			1											1	1	
							1	1		2														2		
		1						2		1		1											2			
1			1				2	1				1	2										3			
								1							1								1			
								1		1														1		
2	2	3	6	2			16	4		7	1		10		1			1					14	1	5	
								1						1										1		
								1		1													1			
								1							1								1			
							1			1													1			
							7	3		10														10		
		2						2		1			1										1		1	
1	1						2	2		2			2										2	2		
		1					2			1			1										2			
							1			1													1			
		1					1										1						1			
				2			2	1		1			2											1	2	
							1	1		1			1										1	1		
							1			1														1		

TABLE 55.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN TRENTON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1			2	3	1	2	8	7	5	5	3	2
Measles	6		2	9									
Scarlet fever	7				1						1		
Whooping cough	8		1	2									
Diphtheria and croup	9			8	1	1	1						
Influenza	10		1										
Dysentery	14												
Erysipelas	18										1	1	1
Purulent infection and septichaemia	20												
Rabies	23												
Tetanus	24	1							1				
Tuberculosis of the lungs	28		1	2	1	3	13	19	32	27	17	23	23
Acute miliary tuberculosis	29					1		2	1		1		
Tuberculous meningitis	30		5	6	2								
Abdominal tuberculosis	31		2			1		1	1		2		
Pott's disease	32							1					
Tuberculosis of other organs	34		2			2				1			1
Disseminated tuberculosis	35							1				1	
Rickets	36			1									
Syphilis	37	4	3						1				1
Cancer and other malignant tumors of the buccal cavity	39								1			1	
Cancer and other malignant tumors of the stomach, liver	40				1				1	1	1	3	
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												1
Cancer and other malignant tumors of the female genital organs	42										2	4	
Cancer and other malignant tumors of the breast	43												3
Cancer and other malignant tumors of the skin	44												1
Cancer and other malignant tumors of other organs or of organs not specified	45										1		
Other tumors (tumors of the female genital organs excepted)	46												
Acute articular rheumatism	47							1					
Diabetes	50							1				2	1
Leuchaemia	53												
Anaemia, chlorosis	54										1		
Other general diseases	55	1							1			1	
Alcoholism (acute or chronic)	56								1		3	1	1
Chronic lead poisoning	57												1
Simple meningitis	61	1	3	2	1				1		1	1	1
Including: Cerebrospinal fever	61A		1	1							1		
Locomotor ataxia	62												
Other diseases of the spinal cord	63			1									1
Cerebral haemorrhage, apoplexy	64		1	1				2		1	2	3	3
Softening of the brain	65									1	2		1
Paralysis without specified cause	66									2	2	1	3
General paralysis of the insane	67											1	
Other forms of mental alienation	68									1	1	1	
Epilepsy	69												1
Convulsions of infants	71	10	6	2									
Other diseases of the nervous system	74										1		
Diseases of the ears	76							1	1	1			
Pericarditis	77				1								
Acute endocarditis	78			2		2	1	2	4	3	1	1	3

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
1	1	1					31	10		17	2		1	2	4		10	1	2		1	1	21	19		1
							6	5		11														11		
								2		2													1	1		
								3		3														3		
							4	7	1	9							1					1		11		
		1	1				1	2		1	1			1										1	2	
1		1						2		1				1									1	1		
							3			1							2						2	1		
			1				1			1													1			
1							1						1										1			
							1	1		1												1		2		
8	2	7	5	3			112	74	17	124	10	1	5	5	2	1	11		12		1	14	101	68	7	10
	1						4	2		6													4	2		
							6	7		13														13		
2			1				5	5	1	7			1	1								1	2	6	1	1
							1		1													1				1
							4	2		5				1									1	5		
							2		2	1												1	1	1		
								1	1	1														1		
							6	3	1	8							1						1	7	1	
		1	2				5			3				1			1						2	1	2	
6	7	10	5				20	15	2	20	4		6	1			2		1			1	18	4	12	1
1	4	4	3				5	8		9			2						1		1		10		3	
	1	2	1					10	1	8	1							1					7	1	2	
	1	2	2					8	1	5	1						1				1		4	1	3	
1			1				2	1		2				1									1	1	1	
	4	1		1			3	4		5				1								1	2	2	2	1
			1					1		1														1		
1		1						3		2				1									2		1	
4		5	3				7	9		12		1	1						1		1		12	1	3	
		1						1			1														1	
		1					1	1		1					1								2			
	1	1	1				5	1		3	1			1								1	2	1	2	1
1	1						8			5			1				1					1	3	4		1
							1							1									1			
	2	1					10	4		11			3										6	8		
							1	2		3													1	2		
		1					1						1										1			
1	1	1					4	1		3	1		1										4	1		
3	11	41	37	14	2		54	67	2	78	7		11	17	3			1	2		2		60	15	45	1
		2					3	3		4				1	1								4	2		
5	5	4	2	1	1		12	14	1	17			2	2			2	1			2		16	3	7	
								1		1													1			
		1		1			4	1		3			1				1						4		1	
		1					2			1							1						1	1		
							9	9		17							1							18		
1								2	1	1												1	2			
							2	1		2									1				2	1		
								1		1														1		
1	4	12	5	1	2		19	25	4	29	2		3	3	1		2		1			3	21	13	10	

TABLE 55.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN TRENTON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Organic diseases of the heart	79	1	4	2	3	2	1	1	2	3	7	6	6
Angina pectoris	80									1			1
Diseases of the arteries, atheroma aneurysm, etc.	81											1	
Embolism and thrombosis	82												
Haemorrhage; other diseases of the circulatory system	85										1		
Diseases of the larynx	87											1	
Diseases of the thyreoid body	88							1					
Acute bronchitis	89	1	2	2	1								
Chronic bronchitis	90			1									
Bronchopneumonia	91	7	18	13	2		1		1	2	1	2	2
Pneumonia	92	13	22	10		1	2	3	2	5	6	6	6
Pleurisy	93									1	2	1	1
Pulmonary congestion, pulmonary apoplexy	94	3	3				1	1				1	
Gangrene of the lung	95											1	
Asthma	96	1									1	1	1
Other diseases of the respiratory system (tuberculosis excepted)	98	1											
Other diseases of the mouth and annexa	99		1										
Ulcer of the stomach	102									1			
Other diseases of the stomach (cancer excepted)	103	6	8	1									
Diarrhoea and enteritis (Under 2 years)	104	21	79	13									
Diarrhoea and enteritis (2 years and over)	105			2	1				1				2
Intestinal parasites	107			2									
Appendicitis and typhlitis	108				1		2	3		3	1		
Hernias, intestinal obstructions	109	1	3	1				1				1	1
Other diseases of the intestines	110	1		1								1	
Cirrhosis of the liver	113											1	2
Other diseases of the liver	115			1			1		1		1		1
Simple peritonitis (nonpuerperal)	117										1		1
Acute nephritis	119			1		2		1	1	1	2	1	
Bright's disease	120		1				1	3	2	2	4	6	2
Other diseases of the kidneys and annexa	122											1	1
Calculi of the urinary passages	123												
Diseases of the bladder	124												
Other diseases of the urethra, urinary abscess, etc.	125												1
Diseases of the prostate	126												
Nonvenereal diseases of the male genital organs	127												
Uterine haemorrhage (nonpuerperal)	128						1						
Uterine tumor (noncancerous)	129											1	
Other diseases of the uterus	130									1		1	1
Cysts and other tumors of the ovary	131										1		
Salpingitis and other diseases of the female genital organs	132						1	1	1			1	
Accidents of pregnancy	134								1	2			
Puerperal haemorrhage	135						1	2		2	1		
Other accidents of labor	136							1	1	1	2	2	
Puerperal septichaemia	137							1	1	2	2		
Puerperal albuminuria and convulsions	138							1				1	
Gangrene	142											1	
Acute abscess	144												
Other diseases of the skin and annexa	145		2										
Diseases of the bones (tuberculosis excepted	146			1		1				1			
Congenital malformations (stillbirths not included)	150	2	1										
Congenital debility, icterus and sclerema	151	81	3										
Other diseases peculiar to early infancy	152	5	4										
Senility	154												

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
7	10	22	20	9	1		64	43	4	68	9		13	6	2	1	1		3		1	3	49	24	33	1
1	1	3	2	1			6	4	1	9	1												6	2	1	1
2	4	15	18	13	3		28	28	4	39	1		7	7		1						1	16	16	23	1
		1					1						1										1			
								1											1				1			
							1										1						1			
								1		1													1			
		1		1			5	3		6	1			1										6	2	
			2	2			2	3	1	4			1										2	1	2	
3	1	7	7	3			34	36	5	56	2		3	6	1		1		1				16	44	10	
7	5	18	12	5	2		68	57	4	83	8		2	12	6		8	1	2			3	47	58	19	1
3	1						7	2		7			1	1									6	1	2	
1	1	3	1	2			8	9	2	12	1		2	1								1	3	9	5	
							1								1								1			
		2	1	1			6	2		5	1		1	1									4	1	3	
		1	1					3		3													1	1	1	
		1					1	1		2														2		
2			1	1			5			3				1			1						2	2	1	
1	2	2	1				12	9		17	1		1	2									4	15	2	
							68	45	2	113														113		
	1	5		2			5	9	1	12			1	1									5	4	5	
								2		2														2		
1	1	1					8	5	2	9	2						1				1		9	4		
1		1	1	2			6	7		10	1		2										3	6	4	
1		1	1	1			5	2		6												1	1	2	3	1
4	2	1	1				9	2		8			1	1			1						9		2	
			1	1			4	3		4			1			1	1						3	2	2	
			1					3		2							1						1	1	1	
2	1	1	1				8	6		8	1		1		1		1	1			1		9	4	1	
13	9	13	10	9			42	33	3	50	2		6	6	2		3	2	1		1	2	37	10	28	
							2			2													2			
2		1	1				2	2		1	1		1			1							3		1	
				1			1			1													1			
							1			1														1		
	1	2					3			2				1									2	1		
1							1			1													1			
								1	1	1													1			
		1						2		2														2		
								3		1				1			1						2		1	
								1		1													1			
	1							5	2	5													4	1		
								3		1							1		1				3			
								6		3					1		2						4	2		
								7		2					2		1		2				5	2		
								6		1	1		1		2		1						6			
								2		2													2			
	1	1		1			3	1	1	3	1													1	3	
	2							2		1												1	1		1	
			1				2	1		3													1	2		
							3			3													1	2		
							1	2		3														3		
							46	38		84														84		
							5	4		9														9		
			3	5	1			9	1	5				3	1								2	2	5	

TABLE 55.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN TRENTON.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Suicide by poison	155	..	....	..	..	..	..	..	1	1	..	..	1
Suicide by asphyxia	156	..	....	..	..	..	..	..	..	..	1	1	..
Suicide by hanging or strangulation	157	..	....	..	..	..	..	..	1	1	1	..	1
Suicide by firearms	159	..	....	..	..	..	..	..	..	1	1	1	..
Suicide by cutting or piercing instruments	160	..	....	..	..	..	..	..	..	..	..	..	1
Suicide by jumping from a high place	161	..	....	..	..	..	..	..	..	..	1	..	..
Conflagration	166	..	....	..	..	..	..	..	..	..	..	..	..
Burns (conflagration excepted)	167	..	....	9	2	1	..	..	1	..	..	1	1
Accidental drowning	169	..	....	1	..	..	1	4	..	..	3	..	..
Traumatism by firearms	170	..	....	1	..	1	..	..	..	..	..	..	..
Traumatism by fall	172	..	....	..	1	1	..	1	..	2	3	1	3
Traumatism by machines	174	..	....	..	..	2	..	..	..	1	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	1	1	2	1	2	6	4	4	2	2
Injuries by animals	176	..	....	..	..	1	..	..	..	..	..	..	..
Effects of heat	179	..	....	..	..	..	..	..	..	1	..	1	..
Homicide by firearms	182	..	....	..	..	..	..	..	1	..	..	..	..
Homicide by other means	184	1	....	..	..	..	..	..	..	1	..	1	..
Other external violence	186	..	....	..	..	..	..	1	1	..	..	..	..
Cause of death not specified or ill-defined	189	1	15	1	..	..	..	..	..	..	..	..	..

Total deaths, 1,714. Death-rate, 16.83.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
		2					2	3		3			1	1									2	2	1	
	1	1					4			2			1	1									2	2		
							2	2	1	4													2	1		1
							3			2					1								2		1	
							1						1										1			
							1										1						1			
1							1			1															1	
	1				1		8	9		14	1						1		1				3	12	2	
1	3						12	1	2	7				1			1					4	1	6	2	4
1							1	2		2												1	1	2		
1	4	2	5	1			16	9	2	16	3		1	4							1		16	4	4	1
	1						4			2					1		1						2	2		
4	2	2					31	2		19					7		3		2			2	22	10		1
							1			1														1		
							2			1							1						1	1		
							1		1	1														1		
							1	2		1				1								1	1	2		
		1					3								2		1						2	1		
							8	9		17														17		

TABLE 56.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN VINELAND.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Dysentery	14												
Purulent infection and septichaemia	20								1				
Tuberculosis of the lungs	28								2	1		1	1
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the breast	43												
Cancer and other malignant tumors of other organs or of organs not specified	45												
Diabetes	50												
Simple meningitis	61		2							1			
Cerebral haemorrhage, apoplexy	64											2	
Other forms of mental alienation	68												
Epilepsy	69									1			
Acute endocarditis	78									1			
Organic diseases of the heart	79											1	
Angina pectoris	80												
Diseases of the arteries, atheroma aneurysm, etc.	81												1
Embolism and thrombosis	82							1					
Acute bronchitis	89			2									
Chronic bronchitis	90												
Pneumonia	92		1				1					1	
Pulmonary congestion, pulmonary apoplexy	94												
Other diseases of the stomach (cancer excepted)	103												
Diarrhoea and enteritis (Under 2 years)	104		3	1									
Diarrhoea and enteritis (2 years and over)	105			1									
Other diseases of the liver	115								1				
Bright's disease	120												
Other diseases of the kidneys and annexa	122												
Calculi of the urinary passages	123												
Diseases of the bladder	124												
Uterine tumor (noncancerous)	129												
Other diseases of the uterus	130												
Other diseases of the skin and annexa	145												
Congenital debility, icterus and sclerema	151	7											
Other diseases peculiar to early infancy	152		2										
Suicide by poison	155						1						
Other acute poisonings	165												1
Burns (conflagration excepted)	167			1									
Traumatism by fall	172							1				1	
Homicide by firearms	182												1

Total deaths, 97. Death-rate, 17.45.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
...	...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	2	4	...	8	...	...	...	...	3	...	...	...	...	...	...	...	6	...	...	...
...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
1	1	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...
...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
...	1	...	...	1	...	...	4	1	...	4	...	...	1	...	...	...	...	...	...	...	...	...	2	2	1	...
...	1	2	2	1	1	...	5	4	...	6	...	...	...	1	1	...	...	1	...	...	...	...	4	2	3	...
...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
1	...	5	2	2	...	...	6	5	1	9	2	...	...	...	...	...	...	...	...	...	...	...	4	2	5	...
1	...	1	1	...	...	...	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...
...	...	...	2	...	...	...	...	3	...	2	...	...	...	...	...	...	...	...	1	...	...	...	2	1	...	...
...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
1	...	1	...	...	...	...	2	3	...	3	1	...	...	...	1	...	...	...	...	...	...	...	3	1	1	...
...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	1	3	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...
...	...	2	...	1	...	...	4	...	...	2	...	...	...	...	1	...	1	...	...	...	...	...	3	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	1	2	2	1	...	...	3	3	...	6	...	...	...	...	...	...	...	...	...	...	...	...	8	...	3	...
...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	5	2	1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...
...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
...	...	...	2	...	...	...	2	2	...	2	...	...	1	...	1	...	...	...	...	...	...	...	2	...	2	...
...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...

TABLE 57.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN WESTFIELD.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Scarlet fever	7						1						
Influenza	10												
Tuberculosis of the lungs	28		1					1	1				
Acute miliary tuberculosis	29		1										
Abdominal tuberculosis	31							1					
Cancer and other malignant tumors of the stomach, liver	40												
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												
Cancer and other malignant tumors of the female genital organs	42												
Cancer and other malignant tumors of the breast	43												
Chronic rheumatism and gout	48												
Diabetes	50												
Cerebral haemorrhage, apoplexy	64												
Acute endocarditis	78												1
Organic diseases of the heart	79												
Diseases of the arteries, atheroma aneurysm, etc.	81												
Embolism and thrombosis	82												
Diseases of the lymphatic system (lymphangitis, etc.)	84	1											
Chronic bronchitis	90												
Bronchopneumonia	91												
Pneumonia	92									2		1	
Pulmonary congestion, pulmonary apoplexy	94							1					
Other diseases of the stomach (cancer excepted)	103			1									
Diarrhoea and enteritis (Under 2 years)	104	1	3	1									
Appendicitis and Typhlitis	108				1								
Hernias, intestines obstructions	109	1											
Other diseases of the intestines	110												
Other diseases of the liver	115												
Bright's disease	120	1											
Calculi of the urinary passages	123												
Acute abscess	144	1											
Congenital debility, icterus and sclerema	151	4											
Senility	154												
Traumatism by fall	172												
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175							1			1		
Homicide by firearms	182										1	1	
Cause of death not specified or ill-defined	189		1										

Total deaths, 73. Death-rate, 10.61.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
							1			1														1		
				1			1			1														1		
			2				3	3	2	4			1		1								5	1		
								1	1	1														1		
								1		1														1		
			1	1				2		1				1											2	
			1				1			1													1			
		1						1		1															1	
1			1					2		2													2			
			1				1			1															1	
		2					1	1		2													2			
		3	1				1	3		4													3		1	
1			4				2	4	1	4			2										4		2	
		1						1		1															1	
			1	3			2	2			1												1		3	
				1				1		1															1	
							1			1														1		
		1	1				1	1		1			1												2	
		1						1		1													1			
1		1					2	3		4			1										3	1	1	
			1					2	1	2													1		1	
								1		1														1		
							1	4	2	5														5		
								1		1														1		
							1			1														1		
	1						1			1													1			
				1				1		1															1	
1		2					1	3	1	3			1										1	2	1	
			1					1		1													1			
								1		1														1		
							2	2		4														4		
					1			1			1														1	
					1			1		1															1	
							2			2													2			
							2								2								1	1		
							1			1														1		

TABLE 58.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN WEST HOBOKEN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Typhoid fever	1							1					
Measles	6			1									
Scarlet fever	7			1		1							
Diphtheria and croup	9		1	6									
Including: Croup	9A		1	2	1								
Erysipelas	18		1										
Purulent infection and septichaemia	20										1		
Tuberculosis of the lungs	28			1			4	3	4	6	7	7	8
Acute miliary tuberculosis	29			1									
Tuberculous meningitis	30		1	4									
Pott's disease	32						1				1		
Tuberculosis of other organs	34											1	
Rickets	36		1	1									
Syphilis	37												1
Cancer and other malignant tumors of the stomach, liver	40										2		
Cancer and other malignant tumors of the peritonaeum, intestines, rectum	41												1
Cancer and other malignant tumors of the female genital organs	42											1	
Cancer and other malignant tumors of the breast	43											1	
Cancer and other malignant tumors of other organs or of organs not specified	45												
Other tumors (tumors of the female genital organs excepted)	46												
Acute articular rheumatism	47												
Diabetes	50					1						1	1
Leuchaemia	53						1						
Alcoholism (acute or chronic)	56										1		1
Chronic lead poisoning	57											1	
Encephalitis	60			1									
Simple meningitis	61			2	1								
Including: Cerebrospinal fever	61A				1								
Cerebral haemorrhage, apoplexy	64												2
Paralysis without specified cause	66								1				
Convulsions of infants	71		2	2									
Acute endocarditis	78				1	3			1			2	1
Organic diseases of the heart	79		1	1			1		1		1	1	1
Diseases of the arteries, atheroma aneurysm, etc.	81												
Acute bronchitis	89			1									
Chronic bronchitis	90										1		
Bronchopneumonia	91		6	5			1				1		
Pneumonia	92	4	4	6	1			1	1		3	2	2
Pleurisy	93												
Pulmonary congestion, pulmonary apoplexy	94	1										1	
Asthma	96												
Diseases of the pharynx	100				1								
Ulcer of the stomach	102												
Other diseases of the stomach (cancer excepted)	103	1			1								
Diarrhoea and enteritis (Under 2 years)	104	2	10	1									
Diarrhoea and enteritis (2 years and over)	105				1					1			
Appendicitis and typhlitis	108				1								
Hernias, intestinal obstructions	109		1										
Other diseases of the intestines	110												
Cirrhosis of the liver	113										1		
Other diseases of the digestive system (cancer and tuberculosis excepted)	118									1			

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AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1													1			
								1		1														1		
								2		1			1											2		
							2	5		7														7		
							1	3		4														4		
							1			1														1		
								1		1													1			
1		2					26	17		23	1	2	7	1	4			1	1		3		24	17	2	
								1		1														1		
							1	4		5														5		
							1	1		1					1								1	1		
		1					1	1					1		1								1	1		
								2		2														2		
							1						1										1			
2	2	2					4	4		1			5	1							1		7		1	
		1					1	1		1			1										1		1	
		1	1					3		1			1								1		1		2	
								1					1												1	
		1						1							1								1			
	1						1								1										1	
		1						1					1										1			
			1				1	3		2			1	1									2	1	1	
								1		1														1		
							2						1								1		2			
							1						1										1			
								1		1														1		
							3			3														3		
								1		1														1		
1	5	5	4				12	5		7			7	1							2		13		4	
							1			1														1		
							2	2		4														4		
	4	4	4				10	10		9	1	2	4	2	2								8	5	7	
4	4	2	9	2			15	13		13	1	1	9	1	3								16	4	8	
		4	1	1	1		3	4		1			5	1									4		6	
	1			1			1	2		1					1						1		1	1	1	
								1							1								1			
1			1				9	6		12			2								1		2	12	1	
3	2	4	2	1			17	19		23		1	4	1	5		1				1		13	18	5	
1			1				1	1		2													2			
1		1					4			2											1	1	3	1		
		1	1				1	1					2										1		1	
								1		1														1		
		1					1								1										1	
				1				3		3														2	1	
							8	5		13														13		
	2		1				2	3		2			1		2								2	2	1	
2		1						4		3									1					1	3	
1		1					3			1		1	1										2	1		
	1						1								1								1			
2		1					2	2		1			2		1								2	1	1	
								1		1													1			

TABLE 58.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN WEST HOBOKEN.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Acute nephritis	119	..	....	..	..	1	..	..	..	..	..	..	..
Bright's disease	120	1	....	..	2	..	1	..	..	2	3	2	6
Diseases of the prostate	126	..	....	..	..	..	..	..	..	..	..	..	..
Accidents of pregnancy	134	..	....	..	..	..	..	1	..	..	..	..	..
Puerperal haemorrhage	135	..	....	..	..	..	..	..	1	..	..	..	..
Puerperal septichaemia	137	..	....	..	..	..	..	1	..	..	..	..	..
Puerperal albuminuria and convulsions	138	..	....	..	..	..	..	..	..	..	1	..	..
Diseases of the bones (tuberculosis excepted)	146	..	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	19	5	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	2	....	..	..	..	..	..	..	..	..	..	..
Senility	154	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by asphyxia	156	..	....	..	..	..	..	..	..	1	1	..	..
Suicide by hanging or strangulation	157	..	....	..	..	..	..	..	..	..	..	1	..
Suicide by firearms	159	..	....	..	..	..	..	..	..	1	1	..	..
Burns (conflagration excepted)	167	..	....	..	..	..	..	..	..	..	..	..	..
Absorption of deleterious gases (conflagration excepted)	168	..	....	..	..	..	..	..	..	..	1	1	..
Traumatism by fall	172	..	....	..	..	..	..	..	..	..	1	1	..
Traumatism by other crushing (vehicles, railroad, landslides, etc)	175	..	....	..	1	..	..	..	..	..	..	..	..
Effects of heat	179	..	....	..	..	..	..	..	..	..	..	..	..
Cause of death not specified or ill-defined	189	..	6	..	..	..	..	..	..	..	..	..	..

Total deaths, 380. Death-rate, 10.02.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.—Continued.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
..	..	..	1	..	...	...	2	...	....	1	..	..	1	..	..	...	...	...	...	...	...	..	1	1	..	...
3	1	4	5	1	...	...	20	11	....	11	..	..	13	1	3	..	..	..	..	1	2	..	16	8	7	...
1	..	..	..	..	...	...	1	...	....	1	..	..	..	..	..	...	...	...	...	...	...	..	1	...	...	...
..	..	..	..	..	...	...	...	1	....	.....	..	..	1	..	..	...	...	...	...	...	...	..	1	...	...	...
..	..	..	..	..	...	...	...	1	....	.....	..	..	..	..	1	...	...	...	...	...	...	..	1	...	...	...
..	..	..	..	..	...	...	...	1	....	.....	..	..	..	..	1	...	...	...	...	...	...	..	1	...	...	...
..	..	..	..	..	...	...	...	1	....	.....	..	..	..	..	1	...	...	...	...	...	...	..	1	...	...	...
..	..	..	1	..	...	...	1	...	....	.....	..	..	..	..	..	1	...	...	...	...	...	..	...	...	1	...
..	..	..	..	..	...	...	13	11	....	24	..	..	..	..	..	...	...	...	...	...	...	..	...	24	...	...
..	..	..	..	..	...	...	1	1	....	2	..	..	..	..	..	...	...	...	...	...	...	..	...	2	...	...
..	..	1	5	3	...	...	3	6	....	2	..	1	5	1	..	...	...	...	...	...	...	..	1	2	6	...
2	2	..	1	..	...	...	4	3	....	.....	..	..	3	..	1	..	1	1	...	...	1	..	4	1	2	...
..	..	..	..	..	...	...	1	...	....	.....	..	..	..	..	1	...	...	...	...	...	...	..	1	...	...	...
..	..	1	..	..	...	...	3	...	....	2	..	..	1	..	..	...	...	...	...	...	...	..	1	1	1	...
..	..	1	..	..	...	...	...	1	....	.....	1	..	..	..	..	...	...	...	...	...	...	..	1	...	...	...
..	..	..	1	1	...	...	2	2	....	1	..	1	..	..	1	...	...	...	...	...	1	..	1	1	2	...
..	1	..	..	..	...	...	2	1	....	1	..	..	1	..	..	...	...	...	...	...	1	..	3	...	...	...
..	..	..	..	..	...	...	...	1	....	1	..	..	..	..	..	...	...	...	...	...	...	..	...	1	...	...
..	1	..	..	..	...	...	1	...	....	.....	..	1	..	..	..	...	...	...	...	...	...	..	1	...	...	...
..	..	..	..	..	...	...	4	2	....	6	..	..	..	..	..	...	...	...	...	...	...	..	...	6	...	...

TABLE 59.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN WEST NEW YORK.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Measles	6			1									
Scarlet fever	7				2								
Whooping cough	8			1									
Diphtheria and croup	9			1	2			1					
Including: Croup	9A			1									
Dysentery	14			1									
Tuberculosis of the lungs	28		1				2	4	3	3	5	1	1
Acute miliary tuberculosis	29						1						
Tuberculous meningitis	30		1	2	1								
Abdominal tuberculosis	31								1				
Cancer and other malignant tumors of the buccal cavity	39												
Cancer and other malignant tumors of the stomach, liver	40										1		1
Cancer and other malignant tumors of the female genital organs	42										1		1
Cancer and other malignant tumors of other organs or of organs not specified	45								1				
Other tumors (tumors of the female genital organs excepted)	46												
Acute articular rheumatism	47												
Anaemia, chlorosis	54						1						
Alcoholism (acute or chronic)	56												1
Simple meningitis	61			3									
Including: Cerebrospinal fever	61A			1									
Other diseases of the spinal cord	63				1								
Cerebral haemorrhage, apoplexy	64		1	1								1	
Softening of the brain	65												
Epilepsy	69				1								
Acute endocarditis	78				1								3
Organic diseases of the heart	79	1										1	
Angina pectoris	80												1
Diseases of the arteries, atheroma, aneurysm, etc.	81												
Bronchopneumonia	91	1	5	5	1								
Pneumonia	92		6	3			1				1	1	
Pleurisy	93										1		
Diseases of the pharynx	100		1										
Other diseases of the stomach (cancer excepted)	103		2	1									
Diarrhoea and enteritis (Under 2 years)	104	1	7	4									
Diarrhoea and enteritis (2 years and over)	105											1	
Cirrhosis of the liver	113											1	3
Simple peritonitis (nonpuerperal)	117							1					
Acute nephritis	119												1
Bright's disease	120				1					1		2	2
Puerperal septichaemia	137							1					
Following childbirth (not otherwise defined)	140								2				
Congenital malformations (stillbirths not included)	150	1											
Congenital debility, icterus and sclerema	151	7											
Lack of care	153	1											
Senility	154												
Suicide by asphyxia	156								1				1
Suicide by hanging or strangulation	157												1
Suicide by firearms	159												
Other acute poisonings	165						1						
Absorption of deleterious gases (conflagration excepted)	168							1					
Accidental drowning	169							1			1		
Cause of death not specified or ill-defined	189		4	1									

Total deaths, 192. Death-rate, 11.92.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1														1		
							2			2														2		
								1		1														1		
							2	2		4													1	3		
							1			1														1		
								1		1														1		
							13	7	1	16				1		1	1		1				11	9		
							1			1														1		
							1	3		3					1									4		
								1		1													1			
		1					1				1												1			
2			1				2	8		2			2	1									3		2	
	1	1						4		2											2		2		2	
				1				2		1			1										1		1	
			1					1					1												1	
		1						1		1															1	
								1							1								1			
							1			1														1		
							3			8														3		
							1			1														1		
							1			1														1		
1		8	3	1			3	8		6			2	2		1							2	2	7	
	1							1					1										1			
							1			1														1		
1	1	2	1	1	1		1	10		5	1		2	1	1			1					5	1	5	
	2	1	3				3	5		3			3		2								5	1	2	
		2					3						3										1		2	
				1			1						1												1	
				1			5	8		12			1											12	1	
	1	2		1	1		7	10		12			2					1	1		1		4	9	4	
								1										1						1		
							1			1														1		
							2	1		3														3		
							7	5		12														12		
				1			1	1		1											1		1		1	
1			1				5	1		2			3				1						6			
							1			1														1		
							1							1											1	
3		3	1				3	10		4			6	1	1						1		7	3	3	
								1		1													1			
								2		1						1							2			
							1			1														1		
							2	5		7														7		
							1			1														1		
		1	1				1	1		1				1									1		1	
							1	1					2										2			
		1					2			1			1										1		1	
	1	1					2						1		1								2			
								1		1														1		
							1			1														1		
							2															2		1		1
							3	2		5														5		

TABLE 60.—TABULATION OF DEATHS FROM THE CLASSIFIED DISEASES, THE YEAR ENDING

DEATHS IN WEST ORANGE.		AGE PERIODS.											
		Under one month.	Under 1 year, "not including under 1 mo."	One to five	Five to ten	Ten to fifteen	Fifteen to twenty	Twenty to twenty-five	Twenty-five to thirty	Thirty to thirty-five	Thirty-five to forty	Forty to forty-five	Forty-five to fifty
Malaria	4	..	....	..	..	..	..	..	..	..	..	1	..
Measles	6	..	....	1	..	..	..	..	..	..	..	..	..
Scarlet fever	7	..	....	1	..	..	..	..	..	..	..	..	..
Whooping cough	8	..	....	1	..	..	..	..	..	..	..	..	..
Diphtheria and croup	9	..	....	..	1	..	..	..	..	..	..	..	..
Tuberculosis of the lungs	28	..	....	..	..	..	..	3	4	4	3	1	3
Tuberculous meningitis	30	..	2	..	..	..	..	..	..	..	..	..	..
Rickets	36	..	1	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of the stomach, liver	40	..	....	..	..	..	..	..	..	..	1	..	..
Cancer and other malignant tumors of the female genital organs	42	..	....	..	..	..	..	..	..	..	..	..	..
Cancer and other malignant tumors of other organs or of organs not specified	45	..	....	..	..	..	..	..	..	..	..	1	..
Diabetes	50	..	....	..	..	..	..	..	..	..	..	..	..
Anaemia, chlorosis	54	..	....	..	..	..	..	..	..	..	..	..	..
Simple meningitis	61	..	....	1	..	..	..	..	..	..	..	..	..
Cerebral haemorrhage, apoplexy	64	..	....	..	..	..	..	..	..	..	1	..	..
Paralysis without specified cause	66	..	....	..	..	..	..	..	..	..	..	..	..
Convulsions of infants	71	..	....	1	..	..	..	..	..	..	..	..	..
Other diseases of the nervous system	74	..	....	..	..	..	..	..	..	..	..	..	..
Pericarditis	77	..	....	..	..	..	..	..	..	..	..	..	1
Acute endocarditis	78	..	....	..	..	..	..	..	..	..	..	..	1
Organic diseases of the heart	79	..	....	..	..	..	..	..	..	..	..	..	1
Diseases of the arteries, atheroma aneurysm, etc.	81	..	....	..	..	..	..	..	..	..	..	..	..
Acute bronchitis	89	..	....	..	..	..	..	..	..	..	..	1	..
Bronchopneumonia	91	..	....	..	..	..	..	..	..	..	..	..	..
Pneumonia	92	2	....	1	..	..	..	1	..	..	..	..	..
Pleurisy	93	..	....	..	..	..	..	..	..	..	..	..	..
Asthma	96	..	....	..	..	..	..	..	..	..	..	..	..
Pulmonary emphysema	97	..	....	..	..	1	..	..	..	..	..	..	..
Diseases of the pharynx	100	..	....	..	1	..	..	..	..	..	..	..	..
Ulcer of the stomach	102	..	....	..	..	..	..	..	..	..	..	..	1
Diarrhoea and enteritis (Under 2 years)	104	..	2	..	..	..	..	..	..	..	..	..	..
Diarrhoea and enteritis (2 years and over)	105	..	....	1	..	..	..	..	..	..	..	..	..
Appendicitis and typhlitis	108	..	....	1	..	..	..	..	..	..	..	..	..
Hernias, intestinal obstructions	109	..	....	..	..	..	..	..	..	..	..	..	1
Cirrhosis of the liver	113	..	....	..	..	..	..	..	..	..	..	..	..
Other diseases of the liver	115	..	....	..	..	..	..	..	..	..	..	..	..
Acute nephritis	119	1	1	..	..	..	..	..	1	..	..	..	..
Other diseases of the uterus	130	..	....	..	..	..	..	..	..	..	..	..	..
Congenital malformations (stillbirths not included)	150	1	....	..	..	..	..	..	..	..	..	..	..
Congenital debility, icterus and sclerema	151	3	....	..	..	..	..	..	..	..	..	..	..
Other diseases peculiar to early infancy	152	1	....	..	..	..	..	..	..	..	..	..	..
Suicide by poison	155	..	....	..	..	..	..	1	..	..	..	..	..
Suicide by asphyxia	156	..	....	..	..	..	..	1	..	..	..	..	..
Suicide by hanging or strangulation	157	..	....	..	..	..	..	..	..	..	..	..	1
Suicide by firearms	159	..	....	..	..	..	..	..	..	..	..	..	..
Suicide by cutting or piercing instruments	160	..	....	..	..	..	..	..	..	..	..	..	..
Conflagration	166	..	....	..	..	..	..	..	..	1	1	..	..
Traumatism by fall	172	..	....	..	..	1	..	..	..	..	..	..	..
Traumatism by other crushing (vehicles, railroad, landslides, etc.)	175	..	....	..	..	..	..	1	..	1	1	..	..

Total deaths, 112. Death-rate, 9.16.

IN THE STATISTICAL DIVISIONS OF THE STATE OF NEW JERSEY, FOR DECEMBER 31, 1912.

AGE PERIODS.							SEX.		COLOR	NATIVITY.													SOCIAL CONDITION.			
Fifty to fifty-five	Fifty-five to sixty	Sixty to seventy	Seventy to eighty	Eighty to ninety	Over ninety	Not stated	Male	Female	Number of decedents "color black" designated by figure in this column.	United States	England	France	Germany	Ireland	Italy	Scotland	Hungary	Sweden	Russia	Holland	Other foreign	Not stated	Married	Single	Widowed	Not stated
								1		1														1		
							1			1														1		
								1		1														1		
							1			1														1		
								1			1													1		
1	1						9	11		14	1			4	1								9	11		
							1	1		2														2		
							1		1	1														1		
3	1	1						6		2			1	1				1			1		3	1	2	
			1					1						1											1	
								1		1														1		
			1				1			1													1			
1								1		1													1			
							1			1														1		
1		1	1				1	3		1				2								1	2		2	
	1	1						2					1	1									1		1	
								1		1														1		
		1						1						1											1	
							1				1												1			
2							2	1		3													3			
1	1	3		2			5	3		5	1			2									4		4	
			1				1			1													1			
			1				2			1			1										1	1		
		1					1						1												1	
1	3	1	2				3	8		5			1	5									2	4	5	
1								1							1										1	
		1						1		1															1	
								1		1														1		
								1		1														1		
								1						1									1			
							2			2														2		
		2					3			2			1										2	1		
							1			1														1		
				2			3			2			1										2	1		
	1						1						1										1			
			1				1						1										1			
							2	1		3													1	2		
		1						1					1												1	
							1			1														1		
							1	2		3														3		
							1			1														1		
	2						3				1								1			1	1	1		1
								1		1													1			
							1			1													1			
	1						1															1				1
	1						1				1												1			
							2			2														2		
							1			1														1		
							3			3													2	1		

List of Licensed Health Officers and Sanitary Inspectors.

Following is a list of the persons who have successfully passed the examinations provided for in the act approved April 8th, 1903:

Health Officers.

†Budd H. Obert	Asbury Park, N. J.
†Hiram Williams, M.D	Passaic, N. J.
Alex. Marcy, Jr., M.D	Riverton, N. J.
†Wm. S. Green, M.D	Paterson, N. J.
Walter Taylor, M.D	Jersey City, N. J.
Maria M. Vinton, M.D	East Orange, N. J.
†Edward Guion, M.D	Atlantic City, N. J.
†Fred W. Sell, M.D	Rahway, N. J.
Howard L. Baumgartner	Asbury Park, N. J.
Lewis L. Sharp, M.D	Palmyra, N. J.
†Ferdinand N. Sauer, M. D	Jersey City, N. J.
†George T. Tracy, M.D	Beverly, N. J.
†Chester H. Wells	Montclair, N. J.
†Duncan W. Blake, Jr., M.D	Gloucester City, N. J.
Samuel D. Mayhew, M.D	Bridgeton, N. J.
†John O'Brien, Jr	Montclair, N. J.
‡James A. Exton, M.D	Arlington, N. J.
Frank H. Streightoff	Montclair, N. J.
G. W. Fithian, M.D	Perth Amboy, N. J.
†Henry MacDonald	Newark, N. J.
†Leon R. Thurlow	Plainfield, N. J.
†Edward B. Rogers, M.D	Collingswood, N. J.
†J. I. Hoverder, M.D	Atco, N. J.
W. U. Kurtz, M.D	Asbury Park, N. J.
William W. Brooke, M.D	Bayonne, N. J.
John K. Adams, M.D	Orange, N. J.
†Thomas J. Duffield	Asbury Park, N. J.
Henry D. Abbott, M.D	Bayonne, N. J.
Eugene H. Sullivan	Orange, N. J.
†J. Alex. Browne, M.D	Paterson, N. J.
Perkins Boynton	Little Falls, N. J.

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†In the service of the local board of health.

‡ Deceased.

Ellsmore Stites, M.D.	Bridgeton, N. J.
†Marcus W. Newcomb, M.D.	Burlington, N. J.
Charles P. Eaton	Jersey City, N. J.
†V. M. D. Marcy, M. D.	Cape May, N. J.
‡Milton L. Somers, M.D.	Atlantic City, N. J.
†Harry H. Petit, M.D.	Ridgewood, N. J.
†John T. Connolly	Bayonne, N. J.
†Charles J. Larkey	Bayonne, N. J.
†T. Lee Adams	Ocean City, N. J.
†R. H. Parsons, M.D.	Mount Holly, N. J.
Jay E. Kilpatrick	Montclair, N. J.
William Schuler	Orange, N. J.
William G. Schauffler, M.D.	Lakewood, N. J.
†William H. Shipps, M.D.	Bordentown, N. J.
Morris W. Clouse, M.D.	Kearny, N. J.
†Joseph J. Craven, M.D.	Jersey City, N. J.
†Selskar M. Gunn	Orange, N. J.
Joseph Payne, M.D.	Midland Park, N. J.
†Jay G. Foose	Montclair, N. J.
John J. Broderick, M.D.	Jersey City, N. J.
Henry H. Brinkerhoff, M.D.	Jersey City, N. J.
†George W. Lawrence, M.D.	Lakewood, N. J.
†James J. Hagan	Jersey City, N. J.
†Charles S. Mills, M. D.	Riverton, N. J.
†Joseph Wantoch, M.D.	Carteret, N. J.
†William H. Iszard, M.D.	Camden, N. J.
Ralph O. Clock, M.D.	Burlington, N. J.
E. Irving Cronk, M.D.	New Brunswick, N. J.
John L. Lund, M.D.	Perth Amboy, N. J.
†Charles McNabb	Bound Brook, N. J.
J. C. Loper, M.D.	Bridgeton, N. J.
Henry C. James, M.D.	Mays Landing, N. J.
A. M. Heron, M.D.	Lakewood, N. J.
George H. Taylor, M.D.	Maplewood, N. J.
L. F. Meloney, M.D.	Clifton, N. J.
I. N. Griscom, M.D.	Ocean City, N. J.
James L. Ollif	Plainfield, N. J.
†Harriet O. Mattison	Plainfield, N. J.
†Lester Hamblet	Asbury Park, N. J.
†John H. Winslow, M.D.	Vineland, N. J.
Grant P. Curtis, M.D.	Town of Union, N. J.
†Robert N. Hoyt	Summit, N. J.
†J. Scott MacNutt	Orange, N. J.

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† In the service of the local board of health.

‡ Deceased.

William D. Sayre, M.D	Red Bank, N. J.
William A. Westcott, M.D	Berlin, N. J.
H. W. Ingling, M.D	Freehold, N. J.
Fred H. Stover	Boston, Mass.
Nelson Elliott, M.D	Passaic, N. J.
William M. Barnes, M.D	Milburn, N. J.
John A. C. Tull, M.D	Ventnor, N. J.
William C. Craig, M.D	Ridgewood, N. J.
Charles B. Bleasby, M.D	Garfield, N. J.
Josiah Meigh, M.D	Bernardsville, N. J.
George T. Palmer	Trenton, N. J.
Carl T. Pomeroy	Plainfield, N. J.
Fritz M. Arnolt	Hackensack, N. J.
Joseph C. Saile	Bloomfield, N. J.
†William J. Willsey	New Brunswick, N. J.
†Frank A. Frederick, Sr	West Hoboken, N. J.
Frank A. Frederick, Jr	West Hoboken, N. J.
Morris Farkas, M.D	West Orange, N. J.
†A. S. Fell, M.D	Trenton, N. J.
Alfred A. Mutter, M.D	Arlington, N. J.
W. R. Rieck, M.D	Arlington, N. J.
†Max Colton	New Brunswick, N. J.
†John G. Taylor	Dover, N. J.
F. M. Hoffman, M.D	New Brunswick, N. J.
George W. Finke, M.D	Hackensack, N. J.
Talbot Reed, M.D	Atlantic City, N. J.
†Frank J. Osborne	Montclair, N. J.
†James E. Brooks	Glen Ridge, N. J.
Richard Bew, M.D	Atlantic City, N. J.
†Nathan A. Cohen, M.D	Wildwood, N. J.
†William Morris	Roselle Park, N. J.
†N. J. Randolph Chandler	Plainfield, N. J.
Elias J. Marsh, M.D	Paterson, N. J.
A. I. Goehrig	Trenton, N. J.
†Edward P. Essertier, M.D	Hackensack, N. J.
†John N. Ryan, M.D	Passaic, N. J.
Alexander Weir, Jr	West Hoboken, N. J.
†T. Dudley Ballinger	Princeton, N. J.
†Henry V. Amerman	Kearny, N. J.
Emery Marvel, M.D	Atlantic City, N. J.
William H. Schmidt, M.D	Atlantic City, N. J.
Fred A. Stetter	Asbury Park, N. J.
Charles S. Brady, M.D	Town of Union, N. J.
†H. T. Partree, M.D	Eatontown, N. J.

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†In the service of the local board of health.

Plumbing Inspectors.

†Henry B. Francis	Camden, N. J.
Joseph Sonnenberg	Irvington, N. J.
Conrad Deuchler	Newark, N. J.
Charles M. Whelan	Trenton, N. J.
†William F. Brode	Atlantic City, N. J.
†Thomas D. Clark	Woodbury, N. J.
Edward J. Kelly	Jersey City, N. J.
Thomas F. Harris	Orange, N. J.
†G. H. Soult	Ridgewood, N. J.
Henry A. W. Smith	Ocean City, N. J.
Hugh F. Parle	Jersey City, N. J.
R. LeRoy Skillman	Newark, N. J.
Andrew McGookin, Jr	Newark, N. J.
Frederick W. Nichols	Newark, N. J.
Luke J. Devine	Elizabeth, N. J.
James Barnard	Trenton, N. J.
Frank H. Fitzgeorge	Trenton, N. J.
George F. Shafer	Hackensack, N. J.
Charles F. West	Gloucester City, N. J.
Bernard B. Reiley	New Brunswick, N. J.
P. W. Borrows	Ridgefield Park, N. J.
Arthur G. Reeves	Cape May City, N. J.
James H. Kiernan	Jersey City, N. J.
Edward A. Sullivan	Newark, N. J.
Gustave A. Albiez	Newark, N. J.
William F. Specht, Jr	Atlantic City, N. J.
Jacob Kull	Newark, N. J.
Eugene Lau	Newark, N. J.
Peter A. Degnan	Newark, N. J.
David Entwistle	Jersey City, N. J.
Tunis Looi	Lodi, N. J.
James A. Marnell	Hoboken, N. J.
Rudolph Riemenschneider	Town of Union, N. J.
W. J. Large	Vineland, N. J.
Charles Steller	Town of Union, N. J.
Martin D. Karl	Garfield, N. J.
Adam J. Hammer	Elizabeth, N. J.
Leavett F. Kelly	Newark, N. J.
W. George Lambert	Riverside, N. J.
Martin V. Driscoll	Jersey City, N. J.
Herbert J. Mason	Vineland, N. J.
Charles F. Shaw	Collingswood, N. J.
William F. Ziegler	West Hoboken, N. J.
Archibald A. Kafar, Jr	Bordentown, N. J.

†In the service of the local board of health.

Edward A. Dugan	Gloucester City, N. J.
Cornelius V. Carty	East Rutherford, N. J.
Frederick J. Dyer	Grantwood, N. J.
Frank S. Kievitt	Passaic, N. J.
G. E. Bangs	West Hoboken, N. J.
Jason H. Wildrick	Washington, N. J.
Clarence B. Slack	Trenton, N. J.
Richard W. L. Osthoff	Bogota, N. J.
Joseph M. Loeffler	Newark, N. J.
George M. Crawley, Jr	Newark, N. J.
Conrad C. Hoffmeier	West Hoboken, N. J.
J. Elmer Deppe	Newark, N. J.
Robert B. Murphy	Ridgewood, N. J.
Newton DeBaun	Hackensack, N. J.
Alex. Weir, Jr.	West Hoboken, N. J.
Richard T. Bagg	Vineland, N. J.
Jos Lendner	West New York, N. Y.
John Nolan	Bayonne, N. J.
Vincent Ahlemeyer	Jersey City, N. J.
Charles Munzing	Jersey City, N. J.
Michael Saul	Newark, N. J.
John J. Waters	Jersey City, N. J.
R. C. Adamson, Jr.	Long Branch, N. J.
Irving J. Demarest	Westwood, N. J.
Patrick J. Ryan	Wallington, N. J.
Patrick J. Hennessy	Jersey City, N. J.
Hubbard Ferguson	Ridgewood, N. J.
Joseph P. Lee	Jersey City, N. J.
B. H. Sooy	Atlantic City, N. J.
Samuel Powell	Roselle Park, N. J.
William Maloney	Jersey City, N. J.
William C. Banta	Ridgewood, N. J.
Fred Henniger	Jersey City, N. J.
Robert J. Fair	Gloucester City, N. J.
Michael A. Shanahan	Jersey City, N. J.
Richard J. O'Crowley, Jr	Newark, N. J.
Harry A. Wilkins	Newark, N. J.
George S. Webb	Wildwood, N. J.
Lewis Barnett	Millville, N. J.
James C. Wegham	Wildwood, N. J.
Sidney S. Craythorn	Beverly, N. J.
George H. Northam	Long Branch, N. J.
Charles J. Dignum	West Orange, N. J.
James F. Mulhall	East Orange, N. J.

Alfred T. England	Haddonfield, N. J.
Charles Kunz	West Orange, N. J.
Thomas J. Dowling	Orange, N. J.
Anthony H. Sachs	Carlstadt, N. J.
Oscar J. Verhoek	Irvington, N. J.

Sanitary Inspectors of First Class.

†Fred W. Hering	Jersey City, N. J.
†George W. Gilmore	Newark, N. J.
†Fred C. Robertson, M.D	Jersey City, N. J.
†John T. McClure	Harrison, N. J.
†John G. Taylor	Dover, N. J.
Charles E. Bellows	Bridgeton, N. J.
†Albert E. Geissler	Kearny, N. J.
Thomas Ainge	Lansing, Mich.
Charles S. Voorhis	Palmyra, N. J
†Lewis E. Boutillier	Newark, N. J.
†Joseph C. Saile	Bloomfield, N. J.
†Casper Benz	Newark, N. J.
†Robert W. Meeker	Plainfield, N. J.
†John K. Bennett, M.D	Gloucester City, N. J.
William H. Addis	Plainfield, N. J.
William W. Heberton, M.D	South Orange, N. J.
Eric Ordell	Newark, N. J.
John Greaves	Jersey City, N. J.
†John E. Rowe, D.V.S	Summit, N. J.
George N. Smith	Newark, N. J.
†Frank Dencklan	Plainfield, N. J.
J. H. C. Hunter	Dover, N. J.
Chauncey V. Bunnell	Jersey City, N. J.
†Charles F. Conrad	Newark, N. J.
Percy W. Sipp	Newark, N. J.
†H. S. Winterhalter	Bayonne, N. J.
Jay E. Kilpatrick	Montclair, N. J.
W. J. E. Seder	Newark, N. J.
†Alonzo Brower	Freehold, N. J.
†Frederick E. Wilson	Bayonne, N. J.
David R. Thompson	Delaware City, Del.
†Jay G. Foose	Montclair, N. J.
†William H. Lowe, D.V.S	Paterson, N. J.
Charles W. Harreys, M.D	Ridgewood, N. J.
Joseph C. Bitler, M.D	Hammonton, N. J.
†Lynford E. Tuttle, M.D.V	Bernardsville, N. J.
James L. Ollif	Plainfield, N. J.

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† In the service of the local board of health.

J. J. Reason, M.D.	Carteret, N. J.
†Alfred C. Benedict, M.D.	South Orange, N. J.
†John H. Winslow, M.D.	Vineland, N. J.
†Harry R. Ingalls	Asbury Park, N. J.
Edward F. Flynn	Newark, N. J.
†Elvia Scott	South Orange, N. J.
Harris Day, M.D.	Chester, N. J.
A. I. Goehrig	Trenton, N. J.
Harry E. Moffett	Newark, N. J.
Irwin C. Dakin	Newark, N. J.
William Gleuck, Jr.	Newark, N. J.
Fred S. Ball, M.D.	Lakewood, N. J.
†Felix McGee	Millburn, N. J.
Charles E. Divine	Newark, N. J.
Charles McNabb	Bound Brook, N. J.
James J. Waters	Newark, N. J.
†John L. Lund, M.D.	Perth Amboy, N. J.
Edward Mulvaney, M.D.	Jersey City, N. J.
John J. Magner, M.D.	Jersey City, N. J.
Edward J. Devitt	Jersey City, N. J.
†J. L. Ebbels	Montclair, N. J.
H. G. Eakin	Union Hill, N. J.
Joseph R. Bartlett	Atlantic City, N. J.
Frank V. Wilkinson	Newark, N. J.
Edwin E. Taber	Long Branch, N. J.
†John A. Manson	Dover, N. J.
†Lester J. Hamblet	Asbury Park, N. J.
Clarence A. Lamont	Asbury Park, N. J.
Alex. M. Heron, M.D.	Lakewood, N. J.
Abram A. Lydecker, M.D.	Haledon, N. J.
Howard H. Huffert	Newark, N. J.
†Sylvester Utter, M.D.	Paterson, N. J.
F. Wm. Stahuber	Trenton, N. J.
William Morris	Roselle Park, N. J.
John W. Garey	Atlantic City, N. J.
†James P. McNair	Paterson, N. J.
Thomas J. Steele	Jersey City, N. J.
Walter B. Delaney	Jersey City, N. J.
John C. Harnett	Jersey City, N. J.
Henry A. Bonynge, M.D.	Ridgewood, N. J.
C. H. W. Van Sciver	Burlington, N. J.
†Frank S. Harris	Salem, N. J.
Stanley S. Williams	Newark, N. J.
Patrick J. Brogan	Newark, N. J.

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† In the service of the local board of health.

Samuel Bachman	Newark, N. J.
†Sadie H. Layton	Asbury Park, N. J.
†Frank A. Frederick	West Hoboken, N. J.
Andrew Carney, Jr	North Plainfield, N. J.
†John J. Belbey	Morristown, N. J.
Gustavus E. Freideman	Newark, N. J.
†Ralph L. Huttenloch	Montclair, N. J.
William McKeon	Paterson, N. J.
†H. W. Hartman, M.D	Keyport, N. J.
†John T. McClure, Jr	Harrison, N. J.
Adolph O. Elsasser	Newark, N. J.
John Q. Larkin	Jersey City, N. J.
H. L. Harley, M.D	Pleasantville, N. J.
Frederick W. Nichols	Newark, N. J.
George C. Losey	Washington, N. J.
Clarence I. Palmer	Newark, N. J.
Fritz M. Arnolt	Albany, N. Y.
B. F. Seaman, M.D.	Raritan, N. J.
George A. West	Raritan, N. J.
C. P. Deyoe, M.D	Ramsey, N. J.
J. Alonzo Beek, M.D	Gloucester City, N. J.
Frederick A. Stetter	Asbury Park, N. J.
Edward A. Cleary	Newark, N. J.
Thomas P. Walsh	Newark, N. J.
Thomas F. Boles	Newark, N. J.
William B. Palmer	Orange, N. J.
Frank Brouwer, M.D	Toms River, N. J.
Thomas J. Carter	Newark, N. J.
Charles A. Kealtng, M.D	Paterson, N. J.
†Wm. C. Allen	Trenton, N. J.
†Edward L. Titus	Trenton, N. J.
Lloyd M. Van Ness	New Brunswick, N. J.
†Max J. Colton	New Brunswick, N. J.
†Henry V. Amerman	Kearny, N. J.
Edward H. Salmon, M.D	Jersey City, N. J.
Myron J. Seely	Montclair, N. J.
Wallace T. Eakins	New Brunswick, N. J.
John S. Young, M.D	Rahway, N. J.
Fred J. Dyer	Grantwood, N. J.
Milton E. Baxter	Jersey City, N. J.
N. J. R. Chandler	Plainfield, N. J.
John F. Boylan	Bayonne, N. J.
Leavett F. Kelley	Newark, N. J.
Chas. E. Messerschmidt	Newark, N. J.

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† In the service of the local board of health.

Samuel Denton	Bayonne, N. J.
Thomas E. Reynolds	Atlantic City, N. J.
Claudis E. McNenney, M. D.	Jersey City, N. J.
Philip Morris, C. E.	Passaic, N. J.
James A. Woods	Atlantic City, N. J.
Newton De Baun	Hackensack, N. J.
Fred C. Harris	Jersey City, N. J.
Richard Savage	Orange, N. J.
Bernard F. O'Hara	Jersey City, N. J.
Christian Petry	Jersey City, N. J.
Garrett E. St. John	Newark, N. J.
Henry F. Kneller	Newark, N. J.
George C. Nicol	Jersey City, N. J.
William A. Webber	Orange, N. J.
George Scales	Rahway, N. J.
John Levine	Newark, N. J.
John A. Kelly	Newark, N. J.
Nathan Aronson	Newark, N. J.
Obadiah S. Cole	Newark, N. J.
Herbert A. Stine	Plainfield, N. J.
James Weldon	Jersey Sity, N. J.
Dennis E. Gavin	North Plainfield, N. J.

Sanitary Inspectors of Second Class.

†Charles Cunningham, M.D.	Hammonton, N. J.
†Franklin P. Vanlier	Woodstown, N. J.
†Joseph J. Clickenger	Irvington, N. J.
†J. C. Shinn, M.D.	Jamesburg, N. J.
George Wildman	Belmar, N. J.
John M. Bensel	Pleasantville, N. J.
George S. Everett	Linden, N. J.
Frederick J. Dyer	Grantwood, N. J.
John C. Clayton, M.D.	Freehold, N. J.
Robert Ballagh	Hackensack, N. J.

Sanitary Inspectors of Third Class.

David Jamieson	Gloucester City, N. J.
†Robert A. Hirner	Woodbridge, N. J.
Robert Dickson	Fair Haven, N. J.
T. Nelson Lillagore	Ocean Grove, N. J.
William B. Smith	Belleville, N. J.
Adrian Hommell	Asbury Park, N. J.
William B. Davis	Morris Plains, N. J.

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† In the service of the local board of health.

J. N. Fowler	Port Norris, N. J.
Charles Butcher, M.D.	Heislerville, N. J.
John J. Bennett	Belleville, N. J.
Joseph G. Coleman, M.D.	Hamburg, N. J.

Meat Inspectors.

†G. F. Harker, D.V.S.	Trenton, N. J.
†Richard W. Hewitt, D.V.S.	Camden, N. J.
Willet H. Cooper, D.V.S.	Trenton, N. J.
‡Albert T. Sellers, D.V.S.	Camden, N. J.

Milk and Dairy Inspectors.

J. Wesley Maple	Trenton, N. J.
Arthur McRoberts	Jersey City, N. J.
Harold E. Stearns, D.V.S.	Kearny, N. J.
Henry F. Kneller	Newark, N. J.

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† In the service of the local board of health.
‡ Deceased.

List of Sanitary Districts

With Names and Addresses of Officers and Members.

CITIES.

Absecon, Atlantic county; population, 781. Dr. E. H. Madden, President; Dr. C. C. Allen, Dr. W. C. Sooy, Dr. Samuel Johnson, Martin Spickerman, Samuel Johnson, Clerk and Registrar.

Asbury Park, Monmouth county; population 10,150. D. W. Sexton, President; T. H. Beringer, C. J. Black, A. F. Cottrell, William La Baw, I. R. Taylor, Geore Turner, B. H. Obert, Clerk and Registrar, H. R. Ingalls, Inspector; F. A. Stetter.

Atlantic City, Atlantic county; population, 46,150. Commission Form of Government William H. Bartlett, Director Dept. Public Safety in charge of Bureau of Health; Alfred T. Glenn, Clerk; Edw. Guion, M. D., Health Officer; Harry C. Beck, Chief Inspector; Thomas W. Clement, Food Inspector; W. F. Brode,. Plumbing Inspector; Benj Sooy, John W. Carey, John Bensel, Thos. E. Reynolds, Chas. McDowell, Assistant Inspectors.

Bayonne, Hudson county; population, 55,545. John Cook, M. D., President; M. T. Cronin, E. F. Carbin, Jerry Lisk, J. J. Knight, Louis Epstein, E. Macchi, John T. Connelly, M. D., Health Officer; John Harding, Secretary; H. Winterhalter, Sanitary Inspector; John Boylan, Assistant Sanitary Inspector.

Beverly, Burlington county; population, 2,140. Reuben P. Hains, President; Howard D. Craythorn, James D. Fish, Ralph C. Fish, William H. Donaldson, Chas. J. Parsons, Clerk and Registrar; Dr. Geo. T. Tracy, Inspector.

Bordentown, Burlington county; population, 4,250. James S. Gilbert, President; Samuel F. Garrison, Wm. M. Kester, Jos. R. Malone, Clerk and Registrar; Amos P. Thorn, Inspector.

Bridgeton, Cumberland county; population, 14,209. Frank S. McKee, Jr., President, J. B. R. Nixon, Harry E. Pine, Harry McPherson, Joseph Miller, Sidney O. Williams, Secretary; Jacob B. Jones, Registrar; Chas. E. Bellows, Inspector; DeVoe Tomlinson, Treasurer; J. Hampton Fithian, Solicitor; Dr. S. C. Tremaine, Cattle Inspector.

Burlington, Burlington county; population, 8,336. Franklin S. Carter, President; Neal D. Keeler, Geo. W Shinn, John B. Cassidy, M. D., Wm. R. Schuyler, Walter W. Marrs, Clerk and Registrar; C. H. W. Van Sciver.

Camden, Camden county; population, 94,538. Henry H. Davis, M. D., President; R. H. Gaskill, M. K. Mines, M. D., S. G. Bushey, M. D., H. H. Sherk, M. D., William I. Kelchner, M.D., Dr. W. W. Knowlton, Eugene B. Roberts, Clerk; Wm. D. Brown, Registrar; John F. Leavitt, M. D., N. H. Iszard, M. D., Henry B. Francis, Joseph A. Starr, G. H. Robinson, Inspectors; L. P. Munion, Disinfector; Lewis A. Lee, Record Clerk.

Cape May City, Cape May county; population, 2,471. Dr. A. L. Leach, President; George L. Lovett, Robert S. Hand, W. R. Sheppard, Dr. Westley R. Wales, Wm. Porter, Clerk; Thos. N. Millet, City Clerk; Dr. V. M. D. Marcy, Health Officer.

East Orange, Essex county; population, 34,371. Roger H. Butterworth, President; Frank B. Lane, M. D., Ralph H. Hunt, M. D., John W. Mooney, DeWitt Cook, Jr., Wm. T. Bowman, Clerk; Lincoln E. Rowley, City Clerk; Edward W. Lindsley, Inspector; Charles N. Banks, Bacteriologist.

Egg Harbor City, Atlantic county; population, 2,181. August A. Breder, President; Henry G. Regensburg, Henry Otto, Dr. M. Frank, Wm. Morgenweck, Jr., Clerk and Registrar.

Elizabeth, Union county; population, 73,409. John W. Whelan, President; Jacob L. Bauer, S. R. Brown, M. D., E. W. Connell, T. E. Dolan, John J. Heck, S. M. Williams, John F. Kenah, Clerk and Registrar; L. J. Richards, P. J. Connell, Henry Toole, Michael O'Leary, Gustave Meyer, Inspectors.

Englewood, Bergen county; population, 9,924. George B. Best, M. D., President; T. W. Lydecker, Edward Koster, S. D. Bogert, Clerk; Robert Jamieson, Registrar; John A. Manson, Inspector.

Gloucester City, Camden county; population, 9,462. Harlan S. Miner, President; Stokes Prickett, W. F. Mac Lennan, M. D., Alonzo Cheesman, Howard L. Lincoln, G. Wm. Barnard, Allan W. Redfield, Clerk; Chas. F. West, City Clerk; Dr. J. A. Beek, Health Inspector; Robert J. Fair, Plumbing Inspector.

***Hoboken, Hudson county**; population, 70,324. Joseph Tucker, Clerk and Registrar.

***Jersey City, Hudson county**; population, 267,779. James J. Hagan, Secretary and Health Officer.

Lambertville, Hunterdon county; population, 4,657. Edward W. Closson, M. D., President; George L. Ronine, M. D., Frank H. Scobey, Harry M. Morehead, James Moonan, James H. Reynolds, Clerk and Registrar; Charles S. Closson, Inspector; Lewis C. Williams, M. D.

Long Branch, Monmouth county; population, 13,298. Dr. Paul Kahn, President; Dr. J. V. Welch, Henry Hume, Henry Beinley, Josiah Stratton, Alex. Paul, Winfield R. Warwick, Clerk and Registrar; Edwin E. Taber, Inspector; Geo. H. Northam, Plumbing Inspector.

***Margate City, Atlantic county**; population, 129. James Boice, Clerk.

Millville, Cumberland county; population, 12,451. John W. Wade, M. D., President; H. Garret Miller, M. D., Charles P. Estbill, Harry L. Thomas, L. H. Hogate, Clerk and Registrar; John D. Brandriff, Plumbing Inspector; Frank Bullock, Inspector.

* **Newark, Essex county**; population, 347,469. David D. Chandler, Secretary and Health Officer.

***New Brunswick, Middlesex county**; population, 23,388. Elmer J. McMurtrie, Secretary and Registrar.

Northfield City, Atlantic county; population, 866. Joseph Lake, President; William Oxley, A. R. Vickers, Clerk and Registrar.

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* No report received.

Orange, Essex county; population, 29,630. Bridgewater M. Arnold, President; Ludlow B. Clark, Vice-President; Oliver S. Williams, Dr. G. Herbert Richards, Dr. Daniel W. Poor, Dr. Frederics Liongo, John J. English, Frank J. Osborne, Secretary and Registrar; Thomas J. Dowling, Plumbing Inspector; Richard R. Savage, Wm. A. Webber, Sanitary Inspectors.

Seger, President; C. F. H. Johnson, Geo. H. Michels, Abraham Preiskel, Dr. Wm. H. Carroll, Miss Virginia Hand, Secretary; Thos. R. Watkel, Dr. Wm. H. Carroll, Miss Virginia Hand, Secretary; Thos. R. Watson, City Clerk; Dr. John N. Ryan, Health Officer; Philip Morris, C. E., City Sanitarian; Dr. J. Payne Lowe, Milk and Veterinary Inspector; Dr. Leo H. Joyce, Medical School Inspector; Joseph Whalle, Plumbing Inspector.

Paterson, Passaic county; population, 125,600; Dr. John L. Leal, President; Dr. James F. Briody, Dr. Francis H. Todd, Dr. J. Alex. Browne, Chas. S. Gall, Registrar; Franklin Van Winkle, James J. Maher, Thomas A. Tonge, Clerk; Wm. McKeon, Inspector; Wm. MacDonald, Plumbing Inspector; James Fitzpatrick, Inspector; Dr. W. S. Green, Food and Drug Inspector

Perth Amboy, Middlesex county; population, 32,121. Harvey A. Seil, President; Leo Schwartz, George Wustefeld, A. R. A. Overgaard, Harry H. Petz, John A. Peterson, Michael Zylka, Wilbur La Roe, Secretary and Registrar; Wm. J. Willsey, Health Officer; Samuel T. Frost, John H. Kerr, Assistants to Health Officer.

Plainfield, Union county; population, 20,550. Dr. T. S. Davis, President; Dr. H. D. Corbusier, Secretary; S. H. Voorhees, Treasurer, E. T. Barrows, Hugh Reilly, N. J. Randolph Chandler, Health Officer, Miss Harriet O. Mattison, Registrar; Wm. Addis, Sr., Collis H. Case, Inspectors; Mrs. Howard Boise, Bacteriologist.

* **Port Republic City, Atlantic county**; population, 405. John W. Barton, Clerk.

Rahway, Union county; population, 9,337. Joseph G. Smith, President; Walter E. Cladek, Wm. E. Randolph, John T. Brickell, Thos. Cartwright, Chas. H. Lambert, Clerk and Registrar; Fred J. Mix, Inspector; Dr. F. W. Sell, Health Officer.

Salem, Salem county; population, 6,614. Charles E. Markley, President; R. M. A. Davis, Frank A. Grier, Clifford Butcher, Harry A. Crispen, George Dixon, W. Leslie Swan, Clerk; Frank S. Harris, Registrar and Inspector.

Sea Isle City, Cape May county; population, 551. Edward C. Stevens, President; Howard Sutton, Samuel Norton, R. C. Scott, M. D., James Eustace, Clerk; Irving Fitch, Registrar.

***Somer's Point, Atlantic county**; population, 604. T. George Middleton, Clerk and Registrar.

South Amboy, Middlesex county; population, 7,007. Joseph A. Sexton, President; Joseph Wilson, C. Leon Cozzens, Wm. H. Parison, Inspector; Thos. C. Gelsinon, Clerk; Joseph Wilson, Registrar.

Summit, Union county; population, 7,500. Dr. Wm. H. Lawrence, Jr., President; James G. Ovens, Parker W. Page, M. J. Kenny, Dr. Thos. P. Prout, T. J. Scott, Registrar and Inspector; Max J. Colton, Health Officer.

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* No report received.

Trenton, Mercer county; population, 96,815. Howard H. Ely, Clerk and Registrar; A. S. Fell, M. D., Health Officer.

Ventnor City, Atlantic county; population, 491. Adolph E. Apel, President; M. F. Stevenson, Jr., Dr. Thos. Youngman, Fred R. Rogers, James G. Scull, Clerk and Registrar.

Wildwood, Cape May county; population,——. Commission Form of Government. N. A. Cohen, Health Officer.

Woodbury, Gloucester county; population, 4,642. Dr. H. B. Diverty. President; Wm. T. Cooper, Frank Headley, Sr., George P. Pierce, Wm. Sennett, George Pettyjohn, Edmund H. Carpenter, Clerk; Arthur Starr, Registrar; Joshua Dawson, Inspector.

BOROUGHS.

***Allendale, Bergen county**; population, 937. A. B. Smith, Clerk.

*** Allenhurst, Monmouth county**; population, 306. G. B. Cade, Clerk and Registrar.

*** Allentown, Monmouth county**; population, 634. H. H. Anderson, M. D., Secretary.

Alpha, Warren county; population, ——. William Tinsman. President; William H. Beatty, Orvil Halpin, Wm. H. Albright, Cleveland M. Rhen, Clerk and Registrar; Neil Kennedy, Inspector.

Alpine, Bergen county; population, 377. Wm. T. Opdike, President; John H. Conklin, Sylvanus Van Valen, Louis H. Tavernier, Clerk and Registrar.

Andover, Sussex county; population, 884. Dr. J. C. Clark, President; S. S. Willis, S. H. Willson, Registrar; Harry Stackhouse, W. E. Willson, Clerk.

Atlantic Highlands, Monmouth county; population, 1,645. Dr. Chas. A. Reed, President; James S. Mason, W. T. Franklin, Clerk and Registrar; John R. Snediker.

Audubon, Camden county; population, 1,343. John Yardley, President; Frederick Wuchard, Inspector; Robert Morrell, Joseph William, Wm. L. Glocke, Howard Callingham, Clerk and Registrar.

*** Avalon, Cape May county**; population, 230. E. O. Howell, Jr., Registrar.

Avon, Monmouth county; population, 426. Frank A. Sofield, President; Dr. F. G. Angeny, Dr. Wm. Gorden, H. E. Stanton, John Supple, Clerk and Registrar; H. E. Stanton, Inspector.

Barnegat City, Ocean county; population, 70. Willis Sculthorp, President; Chas. Anderson, Samuel Soper, Wm. H. Bailey, Clerk.

Bay Head, Ocean county; population, 281. No board. Julius Foster, Assessor.

Beach Haven, Ocean county; population, 272. A. J. Durand, Wm. Parker, Geo. Gratn, Samuel S. Andrews, Herbert Willis M. D., Inspector and Clerk; Samuel S. Andrews, Registrar.

Belmar, Monmouth county; population, 1,433. Dr. Fred V. Thompson, President; Wm. M. Bergen, Daniel C. Conklin, Jr., Charles S. Goff. Wilmer H. Hoffman, Jacob Rosenfeldt, Clarence Stines, Chas. O. Hudnut, Clerk and Registrar; Britton M. Bennett, Inspector.

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* No report received.

Bergenfield, Bergen county; population, 1,991. W. Banta Van Saun, President; Dr. George P. Pitkin, John J. Huyler, Secretary and Registrar; Henry Hess, Robert Ellis, Inspectors; George Shaefer, Plumbing Inspector.

Bloomsbury, Hunterdon county; population, 600. George Hawk, President; E. Lear Reigle, M. D., John Heaney, J. V. Willever, Theo. Tinsman, Clerk and Registrar.

Bogota, Bergen county; population, 1,125. Frank R. Wisley, President; R. B. Lord, Dr. G. L. Edwards, Frank J. Parlis, Jos. Mallon, John F. Hill, Clerk and Registrar; R. H. L. Osthoff, Inspector.

Bound Brook, Somerset county; population, 3,970. Dr. J. T. Robinson, President; Dr. C. R. Fisher, G. Stryker, William Schure, Clerk; Chas. McNabb, Registrar and Inspector.

Bradley Beach, Monmouth county; population, 1,807. W. W. Davis, President; E. L. Johnson, W. Haussler, C. F. Burney, Clerk and Registrar; Geo. Bostick, Inspector.

* **Branchville, Sussex county**; population, 663. John A. McCarrick, Clerk and Registrar.

* **Brigantine City, Atlantic county**; population, 67. E. R. Smith, Registrar.

Butler, Morris county; population, 2,265. Geo. C. Coates, President; Edward P. Smithyman. Rudolph Guenter, Allan Looker, Registrar; Samuel K. Owen, Clerk.

Caldwell, Essex county; population, 2,236. Isaac E. Baldwin, President; Henry C. Steinhof, Roscoe C. Dean, Edwin E. Bond, M. D., Wm. J. Gray, Clerk; John J. Van Order, Jr., Registrar; Chester H. Wells, Inspector.

Cape May Point, Cape May county; population, 162. Amnon Wright, President; Trevor Hazzard, Chas. Markley; Albert Schellinger, Frank R. Bowne, Clerk; John W. Corson, Registrar; Virgil M. D. Marcy, M. D., Inspector.

Carlstadt, Bergen county; population, 3,807. Louis Cuneo, President; Chas. Lonz, George Dechert, Dr. E. P. Sickenberger, Rudolph Rayner, Clerk and Registrar; Anthony Sachs, Inspector.

Chatham, Morris county; population, 1,874. Bert A. Prager, M. D., President; J. Thomas Scott, Hervey S. DeGroodt, Claude Budd, David H. Crawford, Clerk and Registrar; John J. McCormack, Sanitary Inspector; George L. Kelley, Plumbing Inspector.

Chesilhurst, Camden county; population, 346. James Breary, President; John Graham, Horace Bradbury, Louis Salmon, Clarence High, J. T. Humphries, Clerk and Registrar, Simon Rohout, Inspector.

Clayton, Gloucester county; population, 1,926. A. G. Silver, R. L. Campbell, S. A. Harker, D. A. Moore, C. F. Fisler, Clerk, Registrar and Inspector.

Cliffside Park, Bergen county; population, 3,394. E. C. Hellstem, President; J. J. Cohn, D. P. Woods, John C. Vosburgh, O. R. McElwain, Clerk and Registrar; Fred Dyer, Inspector.

Clinton, Hunterdon county; population, 836. H. S. Leatherman, President; W. Knight, J. B. Hulaizer, L. B. Baker, Geo. Hall, Clerk and Registrar.

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* No report received.

Closter, Bergen county; population, 1,483. J. F. M. Updike, President; B. F. Blackledge, Dr. C. A. Richardson, Christian Gerke, Alfred Anderson, Clerk and Registrar.

Collingswood, Camden county; population, 4,795. C. W. Batchelor, President; Henry Bennett, Andrew Heeneke, Edward M. Fritz, J. C. Doughten, Phillip G. Knebel, A. C. Havens, C. C. Powell, Clerk and Registrar; Edward B. Rogers, Medical Inspector Edward S. Sheldon, Milk Inspector; Chas. Shaw, Plumbing Inspector.

Cresskill, Bergen county; population, 550. W. H. Brockmeyer, President; Cornelius Godfrey, Secretary; Wm. De Freis, Paul O. E. Ruke, John Ferdon, Clerk; W. H. Brockmeyer, Registrar, J. V. B. Lansing, Inspector.

* **Deal, Monmouth county**; population, 273. Clem Conover, Clerk.

Delford, Bergen county; population, 1,005. Huyler Voorhis, Clerk and Registrar.

Demarest, Bergen county; population, 560. Watson J. Mosier, President; Daniel R. Ketcham, Thos. D. Richardson, Henry L. Schroeder, George V. Morton, Secretary and Registrar.

Dumont, Bergen county; population, 1,783. Dr. George S. Clark, President; Fred Kleppe, Registrar; Harry T. Lamar, Frank G. Duffy, Dr. A. B. Spiegelglass, Dr. J. E. Pratt, Inspector.

* **Dunellen, Middlesex county**; population, 1,990. Dr. Thomas J. Hogan, Clerk.

East Newark, Hudson county; population, 3,163. Dr. John Pringle, President; Harry McDonald, Dr. Wm. B. McGlennon, Registrar; Zeph Knowles, E. J. McKenna, Clerk; John Keenan, Inspector.

East Rutherford, Bergen county; population, 4,275. Fred Taylor, President; Dr. Chas. D. Brooks, Oscar Fortenbach, Cornelius Casper, Geo. Sanders, L. B. Dupuy, Ella M. Niederer, Registrar; C. V. Carty, Inspector.

Edgewater, Bergen county; population, 2,655. Edward M. Fitzgerald, President; George W. Allison, Thomas W. Bradley, John E. Mulligan, Arthur J. Carleton, Clerk and Registrar; Thomas W. Bradley, Plumbing Inspector; George W. Allison, Health Officer.

Elmer, Salem county; population, 1,167. Joseph Gaunt, President; Wm. Ward, Emerson Du Bois, E. P. Vandergrift, Dr. J. V. Conover, Dr. M. S. Black, Clerk; Hiram Van Meter, Registrar.

* **Emerson, Bergen county**; population, 767. B. F. Williams, Clerk and Registrar.

Englewood Cliffs, Bergen county; population, 410. Wm. Wunsch, President; August Herrman, Daniel Westervelt, Emil Vybomy, Registrar; Dr. Jos. Huger, Inspector.

* **Englishtown, Monmouth county**; population, 468. Elmer E. Christie, Clerk and Registrar.

Essex Fells, Essex county; population, 442. J. C. Sprigg, President. W. A. Briggs, L. P. Bolger, F. W. Robison, D. M. Woolton, Clerk and Registrar; J. P. Eyesoldt, Inspector.

Fair Haven, Monmouth county; population, ——. G. B. Hodgman, President; L. M. Dashiell, John J. Naulty, G. V. V. Warner, M. D., Registrar; D. O. Wolcott, Clerk; Thomas J. McGrath, Inspector.

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* No report received.

Fairview, Bergen county; population, 2,441. John Engel, President; John S. Tracy, Clerk and Registrar; Owen O'Connor, R. J. Hopkins, Victor Maraldo.

***Fanwood, Union county**; population, 471. S. W. McAneny, Secretary and Registrar.

Farmingdale, Monmouth county; population, 416. A. A. Yard, President; Ira Bound, Ellwood Applegate, Harry Goodnough, Harry Hulsart, Secretary.

Fieldsboro, Burlington county; population, 480. Robert Bignall, President; Walter Criffith, Reuben Parker, Jos. Hesley, W. H. Erickson, Clerk and Registrar.

Flemington, Hunterdon county; population, 2,693. O. H. Sproul, M. D., President; Daniel McPherson, Charles V. Weiler, Frank E. Green, Wm. Alvater, Wm. E. Corcoran, Clerk; R. C. Harsell, Inspector.

* **Florham Park, Morris county**; population, 558. Wm. V. Tunis, Clerk and Registrar.

Folsom, Atlantic county; population, 232. Joseph Linback, President; Jacob Blazer, Jr., Henry Roller, Henry Blazer, Louis Schulze, Registrar; Dr. Charles Cunningham, Inspector.

Fort Lee, Bergen county; population, 4,472. William Low, President; David E. King, S. J. Corker, Gerome Sardi, Geo. Stabel, Alfred Junghans, Clerk and Registrar; Dr. Max Wyler, Inspector.

Franklin, Sussex county; population, ——. James R. Stephens, Secretary; Franklin Furnace.

Frenchtown, Hunterdon county; population, 984. Martin F. Bellis, President; Walter McIntyre, Hugh Taylor, Wm. S. Dalrymple, E. J. Stryker, Clerk.

Garfield, Bergen county; population, 10,213. Harry Schmittroth, President; Max Walther, Eugene E. Schempp, Robert Hyde, Louis H. Heinzman, Clerk and Registrar; Martin D. Karl, Plumbing Inspector; J. H. Bakelaar, Veterinary Inspector, Dr. Chas. B. Bleasby, Inspector.

Garwood, Union county; population, 1,118. Walter S. McManus, President; John Kline, Otto Flammer, L. M. Wenczel, Burton, M. Galloway, Clerk and Registrar; Andrew Carney, Jr., Inspector.

Glen Ridge, Essex county; population, 3,260. H. C. Harris, M. D., President; H. K. Benson, W. W. Schouler, A. T. Benedict, F. D. Bell, James E. Brooks, Clerk, Registrar and Health Officer.

Glen Rock, Bergen county; population, 1,055. C. M. Veil, President; Howard Ferguson, James May, J. W. Courter, Geo. H. Lane, Clerk; Charles W. Harreys, M. D., Inspector, Ridgewood.

Haddonfield, Camden county, population, 4,142. Stanley W. Rush, President; C. S. Brinton, L. MacMullan, Wm. B. Jennings, M. D., W. H. Smith, M. D., Chas. Blatchley, W. H. Harrison, Registrar; E. F. Magill, Secretary and Inspector; A. T. England, Plumbing Inspector.

Haddon Heights, Camden county; population, 1,452. Dr. George W. Waters, President; Edward R. Jenks, Wm. H. Carney, Clerk; E. N. C. Davis, Registrar; John R. Reeves, Inspector.

Haledon, Passaic county; population, 2,560. Charles G. Staderman, President; A. A. Lydecker, M. D., Inspector; T. B. Kegelman, Clerk and Registrar; Andrew Pregut, Chris Zimmer.

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* No report received.

Hampton, Hunterdon county; population, 914. W. Frank Fritts, President; Robert C. Thomson, James Splane, Dr. T. B. Fulper, Inspector; Thos. J. Raber, Clerk and Registrar.

Harrington Park, Bergen county; population, 377. C. Emshaw Cooper, President; C. P. Johnson, A. H. Nelson, C. A. Richardson, M. D., Inspector; C. J. Martin, Secretary; J. Frank Hallenbeck, Registrar.

* **Harvey Cedars, Ocean county**; population, 33. J. L. Fenimore, Registrar.

Hasbrouck Heights, Bergen county; population, 2,155. Howard B. Vannote, President; Edbert L. Tenney, Anthony F. Moran, Stephen V. Morris, M. D., Health Officer; Wm. J. Schweickert, Registrar and Secretary; Duncan M. Davidson, Inspector.

Haworth Bergen county; population, 588. G. A. Hurd, President; E. T. Hendrickson, M. Dieck, G. E. Allen, R. T. Greene, Jr., Secretary and Registrar.

Hawthorne, Passaic county; population, 3,400. Paul A. Weiland, President; John G. Whittaker, Andrew Quackenbush, William T Reagan, Hervey V. Teetsell, Clerk and Registrar; Joseph Payne, M. D., Inspector; Richard Keefe, Assistant Inspector.

Helmetta, Middlesex county; population, 661. James Deming, Presdent; John Hyson, Clinton M. Clemons, Andrew York, Robert J. Franklin, Clerk; Ed. M. Clemons, Registrar; Dr. J. C. Shinn, Inspector.

High Bridge, Hunterdon county; population, 1,545. John Phillips, President; Ambrose Conover, Samuel Tait, Clerk; A. S. Hummell, Registrar; Edmund Eastwood, M. D., Inspector.

* **Highland Park, Middlesex county**; population, 1,517. Wm. H. Holman, Clerk and Registrar.

Highlands, Monmouth county; population, 1,386. Jacob S. Hoffman, President; Vinton Havens, Calvin Parker, Samuel T. Foster, Wm. H. Belge, Wm. H. Hennessey, Clerk and Registrar; Samuel Straus, Inspector.

Hightstown, Mercer county; population, 1,879. Wm. F. Lott, President; Dr. C. M. Franklin, D. H. Cunningham, R. R. Forman, A. V. Dawes, A. V. Pierson, Clerk and Inspector; John W. Perrine, Registrar.

* **Hohokus, Bergen county**; population, 488. E. F. Keller.

Hopatcong, Sussex county; population, 146. Thos B. Atterbury, President; John P. Muller, Richard D. Voorhis, Hudson Maxim, Alvah Nelson, David W. King, Clerk and Registrar; Chas. O. Rafer, Inspector.

Hopewell, Mercer county; population, 1,073. Robert P. Miller, M. D., J. B. Hill, Robert Zulauf, Chas. W. Stout, Fred I. Sutphen, Clerk and Registrar.

* **Island Heights, Ocean county**; population, 313. W. T. McKaig, Clerk and Registrar.

Jamesburg, Middlesex county; population, 2,075. George A. Shultz, President; James B. Pownall, Paul Davison, J. A. Thompson, Clerk; J. L. Suydam, M. D., Inspector.

Kenilworth, Union county; population, 779. Arthur J. Halladay, President; Christopher C. Wilbur, William Daley, John E. Butler, John C. Heiny, Clerk; Chas. Knudson, Registrar.

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* No report received.

Keyport, Monmouth county; population, 3,582. Gustave Maurer, President; S. F. Mason, Benjamin B. Huyler, M. Lester Terry, Wm. E. Bedle, Chas. F. Tuthill, Clerk and Registrar; H. W. Hartman, M. D., Inspector; Rufus O. Walling.

Leavolette, Ocean county; population, 42. Chas. J. Smith, President; N. Jos. Englebert, Clerk, Registrar and Inspector; Joseph Patterson, Chas. J. Smith, Inspectors.

Leonia, Bergen county; population, 1,486. Frederick E lerbrook, President; Wm. C. Richards, H. M. Thompson, Clerk and Registrar; J. T. Wyckoff, M. D., Health Officer; J. B. Edwards, M. D., Inspector.

Linden, Union county; population, 610. H. B. Hardenburg, Wm. McDonagh, Philetus Smith, J. L. Neubauer, J. F. Watson, Clarence H. Smith, Clerk and Registrar; Dr. Fred'k. W. Sell, Health Officer; W. M. Watson, Wm. McDonagh, Jr.

Linwood, Atlantic county; population, 602. Harry H. Potter, President; John Donnell, Robert Lloyd, Wm. N. Force, James Farish, Clerk and Registrar.

Little Ferry, Bergen country; population, 2,541. Wm. Fehrs, President; Josef Sevc, Otto Schultz, Wm. H. Sall, Louis Brauer, Clerk and Registrar.

Lodi, Bergen county; population, 4,138. John W. Lane, President; Peter DeVries, Joseph Mullane, Dominih Pemician, Jacob Van Hook, Clerk and Registrar; Henry H. Prevoort, Inspector, Tunis Looi, Plumbing Inspector.

Longport, Atlantic county; population, 118. Wm. S. Gilmore, Clerk and Registrar; Ralph Harcourt, Mayor; Bolton E. Steelman, William R. Brice.

Madison, Morris county; population, 4,658. W. H. Barton, President; E. P. Holden, F. H. Seward, M. D., J. J. C. Humbert, A. C. Puddington, S. Fred Bunet, Registrar and Inspector.

Manasquan Monmouth county; population, 1,582. Alonzo Mount, President; Wm. A. Morton, Inspector; R. B. Campbell, Wm. Durling, Robert M. Marks, Clerk and Registrar.

Mantalaking, Ocean county; population; J. R. Such, President; W. E. Belknap, Herman Schwartz, S. C. Shadinger, Clerk and Registrar.

* **Matawan, Monmouth county**; population, 1,646. Wm. Rodgers, Clerk, Registrar and Inspector.

Maywood, Bergen county; population, 889 Henry Heck, President; John M. Masters, John W. Norton, Otto B. Hartwick, Dr. Frank Freeland, N. B. Beam, G. M. Fetzer, Clerk and Registrar; Richard H. L. Osthoff, Inspector.

Mendham, Morris county; population, 1,129. Dr. Geo. S. De Groat, President; D. Sage, E. L. Garabrant, G. S. Thompson, E. J. Rood, Clerk, Registrar and Inspector.

Merchantville, Camden county; population, 1,996. J. E. Vankirk, President; Dr. Jos. Lawrence, A. H. Moses, Thos. Hill, W. B. Stevens, Clerk and Registrar; Wm. Linderman, Inspector.

Metuchen, Middlesex county; population, 2,138. F. M. Orton, C. P. Hull, R. B. Crowell, Registrar; Herman Gross, M. D., Clerk; J. J. R. Clark, Inspector.

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* No report received.

Middlesex, Middlesex county; population, ——. W. B. Kurtz, Secretary; R. F. D. No. 1, Bound Brook.

Midland Park, Bergen county; population, 2,001. C. P. Morgan, President; C. R. Mastin, S. Potash, R. Coyle, A. H. Wastbrock, A. S. Rubin, Clerk and Registrar; Dr. Joseph Payne, Inspector.

Milford, Hunterdon county; population, ——. W. R. Sailer, President; George Stoves, John W. Giles, Frank P. Vanderbelt, Registrar; A. Arling Hill, Inspector.

* **Millstone, Somerset county**; population, 157. Wm. H. Polhemus, Clerk.

* **Milltown, Middlesex county**; population, 1,584. Milton Brindle, Clerk.

Monmouth Beach, Monmouth county; population, 485. Charles A. Valentine, President; Richard West, Clerk; Ashley Van Brunt, Joseph Van Brunt.

Montvale, Bergen county; population, 522. J. V. DeGraft, President; D. H. Atkins, Geo. H. Ihner, Rudolph Ludwig, W. B. Lawson, Clerk and Registrar.

* **Moonachie, Bergen county**; population, 638. Frank C. Weier, Secretary.

Mountainside, Union county; population, 362. Frederick Gordon, President; Chas. Brown, Robert Laing, Clerk and Registrar; Wm. Roll.

Mount Arlington, Morris county; population, 277. R. J. Chaplin, President; F. L. Schafer, F. H. Tappan, Dr. C. D. Gordon, James Levie, Clerk; C. E. Cook, Registrar.

Mount Tabor, Morris county; population, ——. R. A. Lawless, President; Jersey City; J. W. Cleveland, Paterson; Geo. W. Earle, Inspector; H. A. Chamberlaine, Clerk, Jersey City.

National Park, Gloucester county; population, 325. P. B. Milligan, President; J. L. Williams, Oscar H. Duer, Ruth Clements, M. D., Wm. E. Beers, Clerk and Registrar.

Neptune City, Monmouth county; population, 488. Wm. Stokes, President; Bradley Beach, John Nolan, Asbury Park, R. F. D. No. 2; Charles Brown, R. F. D., Asbury Park; Miles Allgor, Sharon F. Smith, Clerk and Registrar; Wm. S. Bennett, Inspector, all of Avon.

Netcong, Morris county; population, 1,532. John Grogan, President; John Miller M. D., T. H. Mahany, Inspector; John Keneally, Francis Jones, J. F. Meade, Clerk and Registrar.

New Providence, Union county; population, 873. Edward T. Nelson, President; Horace B. Guerin, Frederick Wirsching, Wm. Woodruff, Clerk and Registrar; Louis Stahl.

North Arlington, Bergen county; population, 437. Alfred Barnard, President; Harry G. McKinlay, Sidney H. Whitla, John Pfaffendorf, George Fleming, John H. Shields, Clerk and Registrar; Frederick W. Riepe, Inspector.

North Caldwell, Essex county; population, 595. Wm. Kusmaul, President and Registrar; Thos. C. Sanderson, Henry E. Schang, Wm. Little, Thos H. Peer, Clerk.

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* No report received.

North Haledon, Passaic county; population, 749. **Wm. J. Ellis**, President; Edward Watson, Joseph Graham, Thos. Lord, John Ahnert, Frank A. Thornley, Clerk and Registrar; Dr. A. A. Lydecker, Inspector; Emil Miller; Wm. H. Ballentine.

North Plainfield, Somerset county; population, 6,117. Andrew E. Kenney, President; C. H. Reigg, John I. Brower, J. V. Vanderhoef, A. H. Dundon, M. D., Secretary and Registrar; J. L. Ollif, Inspector.

Northvale, Bergen county; population, ——. Charles Semino, President; Nick Herring, James Mizzino, Emil Kober, Clerk and Registrar.

* **North Wildwood, Cape May** county; population, 833. Chas. G. Glenn, Secretary; Ottens, P. O.

* **Norwood, Bergen county**; population, 564. John Gates, Jr., Clerk and Registrar.

Oakland, Bergen county; population, 568. Amos Hopper, President; Thadeus Garrison, Chas. Sheffield, Christian Barmchr, Allen S. Page, Clerk and Registrar; E. W. Hamilton, M. D., Inspector.

Oaklyn, Camden county; population, 653. **Wm. Luick, President**; Geo. Bossler, Geo. Karl, Wm. F. Schaffer, Emil C. Hessert, Richard D. Early, Clerk and Registrar.

Ocean City, Cape May county; population, 1,950. Commission Government. I. N. Griscom, Health Officer and Registrar.

Ocean Grove, Monmouth county; population, ——. A. E. Ballard, President; Henry Wheeler, E. N. Cole, W. H. Wardell, H. B. Alday, M. D., Secretary.

Old Tappan, Bergen county; population, 305. Jacob Z. Bogert President; Clarence V. Gifford, William Blauvelt, John G. Amos, Chas. DeWolf, Clerk and Registrar.

Palisade Park, Bergen county; population, 1,411. Henry E. Clark, President; Dr. J. S. Van Dyke, Rollo Steenland, Louis Quad, Wm. Sehuer, W. G. Stevens, Clerk and Registrar.

Park Ridge, Bergen county; population, 1,401. Dr. S. Alexander, President; D. W. Woodley, A. P. Post,, Dr. J. A. Moenig, M. Verbeyst, T. G. Forbes, Clerk and Registrar; George Shafer, Inspector, Hackensack.

Paulsboro. Gloucester county; population, 2,121. C. B. Stackhouse, President; Richard Richards, O. W. Shield, Jacob Ballinger, Allen B. Black, M. D., Jacob Ballinger, Clerk and Registrar.

Peapack, Gladstone, Somerset county, population, ——. C. R. Kay, M. D., President; John M. Harper, Wm. D. Vanderbeek, Wm. H. Horton, F. H. Ludlow, Clerk and Registrar.

* **Pemberton, Burlington county**; population, 797. J. J. Brander, Clerk and Registrar.

Pennington, Mercer county; population, 722. Dr. Edgar Hart, President; George W. Snook, William Trudel, Frank A. Blackwell, Inspector; Charles M. Titus, Clerk and Registrar.

Penns Grove, Salem county; population, 2,118. A. H. Green, President; R. F. Willis, S. R. Leap, Inspector; C. L. Fleming, M. D., Clerk and Registrar.

Pitman, Gloucester county; population, 1,950. S. P. Lummis, M. D., President and Registrar; A. S. Clark, D. H. Shoch, Arthur D. Bell, Benj. F. Moore, Secretary; B. F. Mattson, Inspector.

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* No report received.

* **Pleasantville, Atlantic county**; population, 4,390. Thomas F. Crawford, Clerk and Registrar.

* **Point Pleasant Beach, Ocean county**; population, 1,003. Chas. W. Dampman, President; Charles B. Imlay, Joseph Elberson, J. E. Harvey, H. C. Shoemaker, Jr., Clerk, Registrar and Inspector.

* **Pompton Lakes, Passaic county**; population, 1,060. Horace L. Wells, Clerk and Registrar.

Princeton, Mercer county; population, 5,136. Dr. J. E. Raycroft, President; C. W. Darrow, Dr. Theo. Van Sickle, Dr. H. E. Wright, Dr. J. P. Matthews, Walter B. Howe, Clerk; W. C. C. Zapf, Registrar; T. Dudley Ballinger, Health Officer; Prof. J. S. Van Nest, C. S. Sincerbeaux.

Prospect Park, Passaic county; population, 2,719. George Boer, President; Henry W. F. Woudenberg, John Crawford, Alfred McAuley, Lambertus Touw, Clerk and Registrar; Abram A. Lydecker, Inspector.

* **Ramsey, Bergen county**; population, 1,667. Daniel S. Wanamaker, Clerk and Registrar.

* **Red Bank, Monmouth county**; population, 7,398. Howard S. Higginson, Clerk and Registrar.

* **Ridgefield, Bergen county**; population, 966. Clifford Mehrhof.

Riverside, Bergen county; population, 736. A. J. Serivens, President; Hiram Voorhis, Herman Gabber, R. T. Middleton, Wm. V. Light, Clerk; Jos. Weston, Registrar; Geo. L. Shafer, Inspector.

Riverton, Burlington county; population, 1,788. E. C. Stoughton, President; C. A. Wright, J. Cunningham, S. W. Collin, Chas. Street Mills, Clerk; Chas. G. Saves, Registrar, Clerk and Inspector.

Rockaway, Morris county; population, 1,902. Wm. Mathews, President; J. M. Nichols, Clarence Beach, E. T. Davey, Edw. Ehlers, James B. May, Clerk; Wm. A. Parliman, Registrar; Charles H. Hull, Inspector; Leonard Hoffman, Edward Roegner.

Rocky Hill, Somerset county; population, 502. W. N. Stutts, President; M. Reeve, M. D., R. W. Avery, A. E. Haynes, C. R. Baldwin, Clerk and Registrar.

* **Roosevelt, Middlesex county**; population, 5,786. R. Joseph Murphy, Clerk.

Roseland, Essex county; population, 486. Dr. J. C. Conover, President; H. G. Rinkie, Ambrose King, P. S. Braunworth, E. A. Williams, Clerk.

Roselle, Union county; population, 2,725. John I. Howe, President; C. P. Higgins, Vice-President; E. S. Waller, Secretary; A. A. Pope, J. D. Cooper, Dr. H. C. Pierson, Dr. G. W. Strickland, William Morris, Registrar and Inspector.

Roselle Park, Union county; population, 3,138. Percy G. Whitney, President; F. Halstead Brown, G. Tipping, Edw. J. Klein, Clerk and Registrar; George Demarest, William Morris, Inspector.

* **Rumson, Monmouth county**; population, 1,449. William Pearsall, Clerk.

Rutherford, Bergen county; population, 7,045. F. W. Buckles, President; J. C. Sares, C. R. Hunt, G. F. Schermerhorn, F. W. Fleming, H. Y. Blakiston, Clerk and Registrar; Geo. K. Thomas, Inspector.

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* No report received.

Saddle River, Bergen county; population, 483. Robert T. Wilson, President; George M. Eckert, R. A. Adams, John G. Ackerman, T. W. Woodruff, James L. Ackerman, Clerk.

Seabright, Monmouth county; population, 1,220. D. H. Karp, M. D., President; Edward Pannaci, Chas. Smith, Lary Fitchter, Inspector; Nathaniel Johnes, Chas. Smith, Clerk and Registrar.

* **Seaside Heights, Ocean county**; population,——. Clyde G. Marcey, Borough Clerk.

* **Seaside Park, Ocean county**; population, 101. G. H. Thacher, Clerk and Registrar.

Secaucus, Hudson county; population, 4,740. Thos. C. Sproul, President; Anton Kohl, Wm. Bude, Emil Koch, Henry Beckman, Louis G. Asmussen, Clerk.

Somerville, Somerset county; population, 5,060. Dr. A. L. Stillwell, President; John B. Osbaurn, Dr. Thomas H. Flynn, Clarence E. Case, Wm. R. Sutphen, Clerk and Registrar; George D. Totten, Inspector.

South Bound Brook, Somerset county; population, 1,024. Wm. T. Morecraft, President; E. D. Latourette, E. B. Randolph, Peter Merlette, Clerk and Registrar; Dr. J. T. Robinson, physician.

South Cape May, Cape May county; population, 7. Frank Mendle, President; O. W. Lofferty, E. B. Martin, Clerk.

* **South Rier, Middlesex county**; population, 4,772. Jesse Selover, Clerk and Inspector.

Spotswood, Middlesex county; population, 623. Joseph Hodapp, Sr., President; John Bell, Clarence Binchell, Geo. W. DeVoe, Clerk; James H. Beebe.

Spring Lake, Monmouth county; population, 853. S. R. Knight, President; K. H. Moore, E. Remsen, Inspector; Otto Morris, D. H. Hills, Clerk and Registrar.

Stanhope, Sussex county; population, 1,031. R. M. Lusche, President; John Wills, H. K. Salmon, John McMichael, J. J. Shaw, Clerk and Inspector.

* **Stockton, Hunterdon county**; population, 605. John S. Wilson, Clerk.

* **Surf City, Ocean county**; population, 40.

Sussex, Sussex county; population, 1,212. Dr. H. D. Van Gaasbeek, President; Dr. J. L. McCoy, S. F. Quince, L. Jesse Fuller, Inspector; H. E. Wells, Clerk and Registrar.

Swedesboro, Gloucester county; population, 1,477. Dr. J. G. Halsey, President; H. H. Sparks, Wm. F. Denny, W. H. Rieger, Clerk and Registrar; Dr. T. B. Turner, Inspector.

* **Tenafly, Bergen county**; population, 2,756. J. M. MacKellar, M. D., Clerk.

Totowa, Passaic county; population, 1,130. Otto Kuhnle, President, R. F. D. No. 1. John Abrams, Eugene Luttringer, Paterson; Frank Dobson, Frank Atkins, Clerk and Registrar; Chas. A. Keating, M. D., Inspector, Paterson.

* **Tuckerton, Ocean county**; population, 1,268. Nathan Atkinson, Secretary.

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* No report received.

* **Upper Saddle River, Bergen county**; population, 273. Henry Zabriskie, Clerk and Registrar; Allendale, R. F. D.

Verona, Essex county; population, 1,675. W. Pitt Rich, President; W. A. Schneider Judson, W. Parker, Louis C. Miller, Clerk; Wm. F. Fismer, Chas. S. Simonson, Registrar; C. H. Wells, Inspector.

Vineland, Cumberland county; population, 5,282. Louis W. Basso, President; Jacob E. Koch, Robert Austin, John Josephs, Ferd Koetz, Clerk and Registrar; Dr. John Hayes, Winslow, Inspector; Walter H. Blake, Spec. Asst.

* **Wallington, Bergen county**; population, 3,448. James Brennan, Secretary and Registrar.

Washington, Warren county; population, 3,567. F. J. La Riew, M. D., President; F. P. McKinstry, M. D., Chas. M. Williams, M. D., John E. Meeker, J. Martin Kase, Wesley Fleming, A. J. Craft, Registrar; Geo. C. Losey, Inspector.

Wenonak, Gloucester county; population, 645. William C. Cattell, President; George L. Dilks, Joseph E. Fruncer, S. H. Bilync, Dr. H. Lake Gilmour, Jesse W. English Clerk and Registrar; Dr. Harry A. Stout, Medical Inspector; Joseph S. Chew, Health Inspector.

West Caldwell, Essex county; population, 494. Marcus S. Crane, President; George M. Canfield, Frederick H. Baldwin, Joseph Beach, Theo. M. Gray, Clerk.

West Cape May, Cape May county; population, 844. W. H. Smith, President; D. E. Stevens, S. M. Taylor, E. G. Roseman, F. R. Hughes, M. D., Clerk.

West Long Branch, Monmouth county; population, 879. Anthony Valbrant, President; Frank Antonodeas, James Atchison, George Waters, R. R. Hughes, Clerk and Registrar.

Westwood, Bergen county; population, 1,870. Dr. G. M. Levetus, President; Dr. T. E. Townsend, J. Musson, Jr., F. Islip, W. C. Demarest, W. A. Hengstenburg, N. Cleveland, Clerk and Registrar; George Shafer, Inspector, Hackensack.

Wharton, Morris county; population, 2,983. J. H. Williams, President; Dr. H. W. Kice, J. J. Langdon, John A. Bermingham, John Kerwick, Registrar; John McDonald, Inspector.

* **Wildwood, Cape May county**; population, 898. N. A. Cohen, M. D., Health Officer.

Wildwood Crest, Cape May county; population, 103. R. Scampton, President; W A. Justice, L. Hallen, Thos. Cross, Inspector; E. B Fragan, Clerk and Registrar.

Woodbine, Cape May county; population, 2,399. Nathan Rigberg, President; Samuel Levinson, Jos. Goodman, Meyer Singer, Jacob Chosen, Moe Rosenfeld, Clerk and Registrar; R. Tellermeyer, Inspector.

* **Woodcliffe, Bergen county**; population, 470. G. J. Wortendyke, Clerk and Registrar, Allendale, R. F. D. No. 2.

Woodlynne, Camden county; population, 500. Alfred Heppard, President; Thomas Wilson, Jr., Albert Serleck, Christian Dupont, Clerk and Registrar; Claude N. Davis, Plumbing Inspector; Daniel Wills, Nuisance Inspector.

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* No report received.

Woodridge, Bergen county; population, 1,043. S. P. Aimes, President; I. Holmes, E. Scheutter, J. Doerflinger, Jas. F. Beck, Clerk and Registrar.

Woodstown, Salem county; population, 1,613. Henry V. Foster, President; William Coleman, Richard E. Corson, S. R. Christy, J. M. Husted, M. D., Wm. B. Foster, Clerk and Registrar; F. P. Vanlier, Inspector.

TOWNS.

Belleville, Essex county; population, 9,891. Herbert B. Vail, M. D., President; Henry J. Mason, Vice-President; George F. Thornton, John F. Flanagan, Jeraldo Maioran, John H. Coeyman, Clerk and Registrar; W. Brand Smith, Inspector; Hugh J. Maguire, Plumbing Inspector.

Belvidere, Warren county; population, 1,764. Dr. F. P. Lefferts, President; Samuel J. Hixson, William Widenor, George Latterman, George H. Weaver, Clerk and Inspector.

Bloomfield, Essex county; population, 15,070. James J. Thompson, President; William R. Ritscher, Seymour P. Gilbert, Joseph Charles, Dr. Jacob Wolfe, Dr. Joseph C. Saile, Clerk, Registrar and Inspector.

Boonton, Morris county; population, 4,930. Giles E. Miller, President; John Glennon, William Carson, Frank N. Banta, Clerk and Registrar; J. H. Dawson, Inspector.

Dover, Morris county; population, 7,468. Dr. A. J. Carroll, Dr. A. W. Condict, E. J. Reiderer, Wm. G. Hummell, Registrar; Wm. H. Tonking, Clerk; John G. Taylor, Health Officer.

Freehold, Monmouth county; population, 3,233. E. D. Clayton, President; W. A. Barkalow, S. L. Bennett, H. S. Brown, Chas. V. Du Bois, Alonzo White, Alonzo Brower, Clerk; Registrar and Inspector.

Guttenberg, Hudson county; population, 5,647. George Petrie, President; Fred. Brunner, Robt. Ewans, Henry Walser, William Prumschaffer, W. G. Langenhop, Clerk.

Hackensack, Bergen county; population, 14,050. Alfred T. Halley, President; H. C. Humphrey, E. B. Walden, Alfred M. Powless, Robert J. Blake, E. M. Johnson, Clerk and Registrar; Newton D. Baun, Inspector; Dr. E. P. Essertier, Health Officer; A. A. Altschuler, R. H. Yereance.

Hackettstown, Warren county; population, 2,715. Wallace Taylor, President; A. E. Martin, M. D., R. G. Clark, Inspector; R. V. Kinsey, Jesse Smith, A. G. Boettiger, Clerk and Registrar.

Hammonton, Atlantic county; population, 5,088. John A. Hoyle, President; John Walther, Clayton R. Scullen, R. G. Scudder, Jos. S. Mart, Jos. C. Bitler, M. D., Clerk and Registrar; Chas. Cunningham, M. D., Inspector.

Harrison, Hudson county; population, 14,498. John T. Malone, President; Dr. Henry Allers, Lawrence S. Fagan, Joseph F. Lynch, Nathaniel P. Comey, Clerk; John T. McClure, Inspector.

Irvington, Essex county; population, 11,877. Jonah Hardgrove, President; Edwin Berry, Otto B. Argast, Albert Mittenmeyer, Jr., Hugo R. Winkler, Treasurer; Julius Bartosch, Clerk; M. Stockman, Registrar; Joseph K. Clickenger, Inspector; Oscar Verhoek, Jr., Plumbing Inspector.

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* No Report Received.

Kearny, Hudson county; population, 18,659. George McAfee, President; Robert V. England, Wm. P. Anderson, Nevin Kennedy, Frank Odendahl, Secretary; Chas. Schiller, Registrar; Henry V. Amerman, Inspector; Walter R. Rieck, Health Officer; H. E. Stearns, V.M.D.

Keyport, Monmouth county; population, 3554.

Montclair, Essex county; population, 21,550. Moses N. Baker, President; Levi W. Halsey, M. D., James T. Hanan, M. D., Seward Davis, Edward Winslow, Chester H. Wells, Registrar and Health Officer; Lewis O. Tayntor, Sanitary Inspector; Ralph L. Huttenloch, Sanitary Inspector; Eugene Syrett, Sanitary Inspector.

Morristown, Morris county; population, 12,507. John R. Burr. President; Robert C. Caskey, Dr. Samuel C. Haven, James D. Ball, Dr. Francis H. Glazebrook, Registrar; Robert S. Van Dyke, Inspector.

Newton, Sussex county; population, 4,467. Warren H. Smith, M. D., President; James A. Vaughan, Chas. S. Steele, Wm. Townsend, A. V. B. Mackerley, Clerk; Ross McPeek, Inspector.

Nutley, Essex county; population, 6,009. J. L. Miller, President; Joseph Lamb, J. Eagleson, Dr. E. P. Whelan, Wm. De Vausey, George Hawksworth, Clerk and Registrar; E. E. Faith, Inspector.

Phillipsburg, Warren county; population, 13,903. P. Frank Hagerty, President; Nicholas Pines, M. T. Lynch, Francis Coyne, Daniel Zeigler, Frank Kneedler, Clerk and Registrar; Howard R. Carey, Inspector; Alma L. Williston, M. D.

Raritan, Somerset county; population, 3,672. Dr. B. F. Seaman, President; J. J. Bourke, Clerk; George H. West, Inspector.

Town of Union, Hudson county; population, 21,023. Frank Zopp, President; John Weil, Frank Holtje, Sr., W. C. Riesenberger, Joseph Syfel, Richard Specker, Clerk; Chas. Steller, Plumbing Inspector; Frank P. Curtis, M. D., Sanitary Inspector.

Westfield, Union county; population, 6,420. Dr. Joseph B. Harrison, President; Dr. Geo. S. Laird, Geo. L. Delatour, H. H. Butler, D. V. S., C. W. Harden, Clerk and Registrar; Andrew Carney, Jr., Inspector. No. Plainfield.

West Hoboken, Hudson county; population, 35,403. Louis A. Menegaux, President; Walter McK. Hillas, Charles Weller, Henry Burstyn, Frank A. Frederick, Clerk, Registrar and Health Officer; Wm. F. Ziegler, Plumbing Inspector.

West New York, Hudson county; population, 13,560. Dr. J. Baechler, President; Rudolf Kunz, Jos. Lindner, Chas. Orth, Harry Kuhlke, Clerk.

* **West Orange, Essex county**; population, 10,980. Ditlow Schroll, Jr., Clerk and Registrar.

VILLAGES.

Ridgefield Park, Bergen county; population, ——. Joseph Fletcher, President; Geo. H. Rowland, B. B. Stern, J. F. Camp, Howard B. Ficken, Clerk and Registrar; C. A. Knox, M. D., Inspector.

Ridgewood, Bergen county; population, 5,416. Edward S. White, President; Dr. W. L. Vroom, Robert W. Muns, John Harmon, E. S. Brower, C. A. Demarest, Clerk; Wilbur Morris, Registrar; Robert B. Murphy, Inspector; Dr. H. H. Pettit, Health Officer.

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* No report received.

South Orange, Essex county; population, 6,014. Mefford Runyon, M. D., President; R. D. Freeman, M. D., Vice-President; E. S. Allen, T. C. Watkins, J. Budd Smith, Clerk; A. C. Benedict, Registrar and Inspector.

TOWNSHIPS.

Acquackanonk, Passaic county; population, 11,869. Richard Berry, Registrar and President; Geo. F. Schmidt, Clifton; Eugene F. Piaget, Great Notch; James Marsh, Sr., Lake View; Frank Wilkinson, Clifton; Wm. Jackson, Albion Place; Edo M. Yereance, Clerk; James F. Sutton, Inspector; Dr. L. F. Meloney, all of Clifton.

Alexandria, Hunterdon county; population, 1,045. Wm. V. Bloom, President; Sherod D. Duckworth, Clerk, Little York; Joseph Hoff, Everittstown; Walten Martin, Mount Pleasant; Dr. F. S. Grimm, Inspector, Baptistown.

Allamuchy, Warren county; population, 642. William Grover, President; Austin Berry, John S. Till, Clerk; John Willsen, Jr., Inspector, Allamuchy; Dr. L. Cook Osmun, Hackettstown.

Alloway, Salem county; population, 1,533. John Crawley, Wallace Halter, Gould Hitchner, Chas. Powell, Clerk; Township Committee; H. M. Loveland, Registrar and Assessor, Bridgeton, R. F. D.

Andover, Sussex county; population, 521. Clark N. Kinney, President; Aaron Maseker, Benj. F. Fritts, Warren H. Smith, M. D., Wm. Iliff, Clerk and Registrar; all of Newton.

Atlantic, Monmouth county; population, 1,205. Edward Taylor, President; Sidney J. Beers, Colts Neck; Aaron D. Sutphin, Phalanx; Frank E. Heyer, Clerk, Colts Neck; Dr. J. D. Ely, Marlboro.

* **Bass River, Burlington county**; population, 685. Joseph B. Lamson, Clerk, New Gretna.

Bedminster, Somerset county; population, 2,375. Geo. M. Powelson, President, Bedminster; Chas. Woods, Pluckamin; Wm. Lisk, Gladstone; H. M. McMurtry, Clerk and Registrar; Somerville, R. F. D. No. 3.

Berkeley, Ocean county; population, 597. Benj. F. Butler, President, Bayville; Wm. Britton, Jr., Bayville; Albert W. Dorsett, Devine Butler, Registrar, Bayville; O. A. Wood, M. D., Inspector, Forked River; Marcus B. Allen, Clerk, Bayville.

Berlin, Camden county; population, 1,611. Dr. W. C. Ranghley, President; Rudolf Kinhue, X. F. Ottiger, Clerk and Registrar; Dr. F. O. Stern, Inspector; all of Berlin; Samuel Adams, West Berlin.

* **Bernards, Somerset county**; population, 4,608. J. E. Buck, Clerk and Registrar, Bernardsville.

* **Bethlehem, Hunterdon county**; population, 980. William C. Riddle, Clerk, West Portal.

Beverly, Burlington county; population, 2,337. Harry K. Cramp, President; John Thornton, Dr. G. E. Harbert, all of Beverly; James R. Maul, Jos. B. Carter, Clerk and Registrar, both of Delanco.

Blairstown, Warren county; population, 1,718. Isaiah Lance, President, Columbia, R. F. D.; L. Milton Wilson, Blairstown; Emmet J. Hoff, Blairstown; Joseph A. Dugan, Clerk and Registrar, Vail; Harry O. Carhart, M. D., Blairstown, Inspector.

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* **No report received.**

* **Boonton, Morris county**; population, 428. Edmund H. Stickle, Clerk and Registrar, Boonton.

Bordentown, Burlington county; population, 608. Dr. C. D. Mendenhall, Inspector and President; Samuel Johnson, Clerk and Registrar; J. H. Colkitt, C. C. Hance, all of Bordentown; W. W. Dewson Trenton, R. F. D. No. 5.

Branchburg, Somerset county; population, 970. S. Y. Opie, President, Neshanic Staiton; John G. Sutphen, E. Cole Vandeer Beek, Augustus McCullough, Clerk and Registrar; Henry Davis, M. D., Inspector, all of North Branch Station.

* **Brick, Ocean county**; population, 2,177. John A. Dorsett, Clerk and Registrar; W. Point Pleasant.

Bridgewater, Somerset county; population, 1,742. J. Albert Schneider, President, Martinville; Chas. T. Smith, Peter Gulick, John Slattery, Clerk and Registrar; Dr. B. T. Seaman, Inspector, all of Raritan.

Buena Vista, Atlantic county; population, 2,723. Orville E. Searle, Registrar and President, Vineland, R. F. D.; Harry Brown, Newtonville; Wm. F. Lacroix, Buena; Archibald Cook, Landisville; Douglas Reed, Newfield, R. F. D.

Burlington, Burlington county; population, 1,220. H. H. Mattson, President; Fred Shedaker, Ellis C. Parker, Thomas B. Gandy, Clerk, Registrar and Inspector; all of Burlington.

Byram, Sussex county; population, 1,055. Augustus McMickle, President; Hiram Stone, F. G. Colby, Geo. M. Prickett, Clerk and Registrar; Andover.

Caldwell, Essex county; population, 704. Henry Myers, President; Austin Speer, Edward Sisco, Theodore Vincent, Clerk and Registrar; all of Caldwell.

Cedar Grove, Essex county; population, 2,409. H. B. Whitehorne, M. D., Clerk, Verona.

Centre, Camden county; population, 3,200. Frank M. La Perre, President, Magnolia; J. E. Haines, Mt. Ephraim, Samuel J. Rowand, Mt. Ephraim; John H. Jackson, Clerk and Registrar; Dr. Leslie C. Lyon, Inspector, both of Magnolia.

Chatham, Morris county; population, 812. Edward W. Blazier, President, Green Village; Louis A. Noe, Madison; Charles A. Johnson, J. Herbert Bebout, Clerk and Registrar, both of Chatham.

Chester, Burlington county; population, 5,069. Wm. B. Lippincott, President; David R. Lippincott, Charles H. Dudley, Thomas Gehring, Samuel S. Dager, Dr. F. G. Stroud, Clerk and Inspector; George W. Heaton, Registrar; all of Moorestown.

Chester, Morris county; population, 1,251. John W. Rourk, President; Chas. B. Pitney, Elias Wock, Dr. Harris Day, Inspector; Chas. Rinehart, Clerk and Registrar, all of Chester.

Chesterfield, Burlington county; population, 1,130. Chas. M. Bunting, President; Aaron E. Johnson, William Wallace, Clerk, Crosswicks; Wright Longstreet, Chesterfield.

Cinnaminson, Burlington county; population, 1,266. Benjamin Lippincott, President; Howard G. Taylor, John L. Schmierer, George C. Frank, Clerk, Cinnaminson; T. E. Steele, Registrar; Dr. J. D. Janny, Inspector.

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* No report received.

Clark, Union county; population, 469. Andrew Gibson, President, Rahway, R. F. D. No. 1; Henry Scheifelstein, Rahway, R. F. D. No. 2; George Holland, Picton; William J. Thompson, Rahway, R. F. D. No. 1.

Clementon, Camden county; population, 2,794. Timothy Fox, President, Laurel Springs; Isaac Higgins, Lindenwold; Royden Lippencott, Kirkwood; Frank B. Cook, Inspector, Laurel Springs; Geo. W. Evans, Clerk and Registrar, Lindenwold.

Clinton, Hunterdon county; population, 2,108. William Gano, President, Annandale; John Tine, Lebanon, R. D.; Geo. B. Rinehart, Lebanon, R. D.; Dr. C. G. Boyer; Inspector; Bergen B. Berhaw; Clerk and Registrar; both of Annandale.

Commercial, Cumberland county; population, 2,604. Harrison Hollinger, President; Oliver Webb, Walter L. Sharp, Clerk and Registrar; Joseph N. Fowler, Inspector; all of Port Norris; Claude Bateman, Mauricetown.

Cranbury, Middlesex county; population, 1,424. John V. B. Wicoff, President, Plainsboro; James C. Chamberlain, William M. Cox, C. Raymond Wicoff, Clerk, Registrar and Inspector; all of Cranbury.

Cranford, Union county; population, 3,641. John W. Heins, President; Chas. W. Burtis, Fred B. Ryan, George C. Moore, Robt. A. Marshall, Alfred H. Miller, Clerk and Inspector; Frank R. Swackhamer, Registrar; James L. Vail, M. D., Edward Mooher, C. E., all of Cranford.

Deerfield, Cumberland county; population, 3,311. E. R. Parvin, President, Registrar and Inspector, Deerfield; John Fralinger, Bridgeton, R. F. D.; John Loper, Bridgeton, R. F. D.; James McNab, Deerfield; H. L. Cooper, M. D., Clerk, Deerfield.

* **Delaware, Camden county**; population, 1,706. W. B. Jennings, M. D., Clerk and Inspector, Haddonfield.

Delaware, Hunterdon county; population, 1,740. Wm. R. Stephenson, President, Stockton, R. F. D. No. 1; William L. Dobbins, Sergeantsville; S. K. Risler, Stockton, R. F. D. No. 2; Harry Johnson, Clerk, Rosemont; Dr. G. N. Best, Inspector, Rosemont.

Delran, Burlington county; population, 1,031. William Kanderer, President; Samuel Caldwell, Laurence Hormer, Jos. S. Bright, Clerk, all of Bridgeboro.

* **Dennis, Cape May county**; population, 1,751. I. S. Townsend, Clerk and Registrar.

Denville, Morris county; population, ——. Frazer Sofield, President, Denville; Chas. J. Fox, Rockaway; Joseph Ellsworth, Clerk, Denville.

Deptford, Gloucester county; population, 2,524. Jessy Hendrickson, President, Sewell, R. F. D. No. 4; R. C. Beideman, Westville, R. F. D. No. 1; C. O. Stern, Sewell, R. F. D. No. 3; Carroll C. Headley, Clerk, Registrar and Inspector, Westville, R. F. D. No. 1.

Dover, Ocean county; population, 2,452. Lucien Gravatt, President; and Registrar; Anthony A. Dunham, John C. Post, Jr., Chas. H. Irons, Frank Browner, Inspector; John A. Ernst, Clerk, all of Toms River.

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* No report received.

Downe, Cumberland county; population, 1,519. A. B. Campbell, President, Newport, Albert Hiesman, Dividing Creek, John Gaskill, Newport; Sheppard Campbell, Clerk and Registrar; Dr. Husted, Inspector; both of Newport.

Eagleswood, Ocean county; population, 550. Oscar C. Cramner, President; Jonathan Cox, Harper G. Rulan, Philip R. Sprague, Clerk; all of West Creek; Dr. C. H. Conover, Tuckerton.

Eastampton, Burlington county; population, 508. S. P. Comegys, President; Isaac Brown, Johnson Oatman, Clerk; all of Smithville; Dr. Vandeveer, Inspector, Mt. Holly.

East Amwell, Hunterdon county; population, 1,203. D. S. Lowe, President, Ringoes R. F. D. No. 2; Abram Polhemus, Ringoes R. F. D. No. 1; Wm. O. Drake, Lambertville, R. F. D. No. 1; P. C. Young, Ringoes; John J. Horn, Registrar and Clerk; Hopewell, R. F. D. No. 1; Dr. P. C. Young, Inspector, Ringoes.

* **East Brunswick, Middlesex county**; population, 1,602. Henry Warnsdorfer, Clerk and Registrar, New Brunswick, R. F. D. No. 2.

East Greenwich, Gloucester county; population, 1,406. William Cook, President, Mt. Royal; William D. Dauson, Mickleton; Samuel Stetser, Clarksboro; J. C. Dauson, Clerk and Registrar Mickleton.

East Windsor, Mercer county; population, 941. Chas. S. Lee, President; H. R. Applegate, Geo. M. Wyckoff, Dr. C. M. Franklyn, Inspector; all of Hightstown; S. L. Mount, Registrar, Etra.

Eatontown, Monmouth county; population, 2,076. S. S. Stout, President; Wm. J. Darby, Raymond Van Keuren, Clerk; Wm. T. Taylor, Registrar; Dr. H. T. Partree, Inspector, all of Eatontown; H. W. Conron, Oceanport.

Egg Harbor, Atlantic county; population, 1,110. R. H. Sheele, President, Idlewood, John H. Smith, Scullville; Franz Boehly, Linwood; Wm. Hauenstein, Clerk and Registrar; Absecon, R. F. D.; Ernst Zille, Inspector, Scullville.

* **Elk, Gloucester county**; population, 1,022. Clement Gardiner, Clerk, Aura.

Elsinboro, Salem county; population, 419. J. Sin. Smith, President; Richard G. Hancock, Edward C. Parkell, Franklin T. Ayares, Clerk; William Griscom, Registrar; all of Salem, R. F. D. No. 3.

Evesham, Burlington county; population, 1,408. William Dunphey, President; Amos Wills, Elmer Read, B. K. Brick, M. D., Clerk; W. F. Powell, Registrar, all of Marlton.

Ewing, Mercer county; population, 1,889. Wm. C. Cook, President, Prospect Heights; Wm. H. Morris, Trenton, R. F. D. No. 1; Wm. P. Conrad, Trenton, R. F. D. No. 1, Wallace Lanning, Clerk and Registrar, Trenton; Dr. E. B. Allen, Inspector, Trenton.

Fairfield, Cumberland county; population, 1,629. James B. Mulford, President and Registrar; George B. Williams, Ed. W. Trenchard, E. C. Swing, Charles H. Nichols, Clerk, all of Fairton; H. E. Lore, M. D., Cedarville.

Fanwood, Union county; population, 1,616. Ira Gage Walker, President; Henry C. Meyer, Samuel G. Hetfield, all Scotch Plains; Dr. F. W. Wescott, Inspector, Fanwood; George H. Johnston, Clerk, Scotch Plains.

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* No report received.

Florence, Burlington county; population, 4,731. Raymond Thompson, President, Roebling; Louis Gray, Florence; Lambert Rainear, Florence; William Malseed, Burlington, William Wilson, Byron Carty, Clerk and Registrar; David Baird, Jr., M. D., Inspector, all of Florence.

Frankford, Sussex county; population, 1,004. Victor Compton, President; Dr. H. E. Riddel, Daniel Dalrymple, Registrar; Geo. G. Clark, J. W. Fountain, Clerk; all of Branchville, R. D. No. 2; Geo. B. Litman, Augusta.

* **Franklin, Bergen county**; population, 1,954. Daniel Snyder, Clerk and Registrar, Midland Park.

Franklin, Gloucester county; population, 2,603. Rev. Charles C. Ewan, President, Newfield; Thomas McArthur, Iona; Mat. Miller, Newfield; Chas. H. Lincoln, Newfield, Clerk, Assessor and Registrar; Dr. R. E. Brick, Inspector, Newfield.

Franklin, Hunterdon county; population, 1,099. Burris Snyder, President, Pittstown; John W. Snyder, Pittstown; John W. Rinehart, Hamden; Elwood Nixon, Clerk and Registrar, Quakertown; Dr. Q. E. Snyder, Inspector, Quakertown.

Franklin, Somerset county; population, 2,395. L. J. Suydam, President, New Brunswick; Elias Baker, Franklin Park; Wm. B. Voorhees, Middlebush, Cornelius Cadmus, Clerk and Registrar, Middlebush; J. H. Cooper, Inspector, E. Millstone.

Franklin, Warren county; population, 1,585. Walter B. Godfrey, President, West Portal; Harvey F. Cole, Broadway; James H. Shipman, Dr. E. H. Moore, C. H. Hoagland, Clerk, all of Asbury.

Fredon, Sussex County; population, 457. Wm. Roy, President, Newton, R. F. D. No. 2; Peter E. Garris, Newton, R. F. D. No. 2; A. C. Snook, Newton, R. F. D. No. 1; W. N. Westbrook, Newton, R. F. D. No. 1; Dr. E. W. Sandis, Stillwater; W. N. Westbrook, Registrar, Newton, R. F. D. No. 1.

* **Freehold, Monmouth county**; population, 2,329. R. V. Lawrence, Clerk and Registrar, Freehold; John C. Clayton, M. D., Inspector, Freehold.

Frelinghuysen, Warren county; population, 1,074. A. L. Cook, President, Marksboro; James Toomath, Newton, R. F. D. No. 1; A. N. Wildrick, Blairstown, R. F. D. No. 1; J. E. Bowman, Clerk, Blairstown, R. F. D. No. 1; Dr. F. Rorbach, Inspector.

* **Galloway, Atlantic county**; population, 1,976. Chas. F. Stuckel, Registrar, Egg Harbor City.

Glassboro, Gloucester county; population, 2,821. L. N. Shreve, President; Albert Repp, G. M. Keebler, J. R. Helm; Clerk; Geo. Benniger, Inspector; all of Glassboro.

Gloucester, Camden county; population, 2,380. Chas. H. Fell, President, Laurel Springs; James Johnson, Sicklerville; James F. Zanes, Chews; Dr. J. Anson Smith, Blackwood; Joseph R. Powell, Registrar, Sicklerville.

Green, Sussex county; population, 888. E. E. Cooper, President, Tranquility; A. Hull, Huntsville; D. H. Longcor, Newton, R. F. D. No. 1; I. L. Labor, Registrar, Tranquility; J. C. Clark, M. D., Inspector; Andover.

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* No report received.

* **Greenwich, Cumberland county**; population, 1,145. J. W. Butler, Clerk, Greenwich.

* **Greenwich, Gloucester county**; population, 874. **Joseph Murray**, Clerk, Paulsboro.

Greenwich, Warren county; population, 904. Jacob R. Rush, President; Geo. E. Hamlen, L. D. Heller, F. W. Curtis, M. D.; all of Stewartsville, R. F. D.; William Sherrer, Clerk, Bloomsbury.

Haddon, Camden county; population, 1,465. Alfred M. Matthews, President; Albert J. Cline, H. E. Locke, James St. C. Williams, Clerk and Registrar; all of Westmont; Edw. B. Rogers, Inspector, Collingswood.

Hamilton, Atlantic county; population, 2,271. John Iszard, President; Harrison A. Wilson, Charles D. Makepeace, Harry Jenkins, Thompson G. Hoover, Clerk; Henry C. James, Health Officer, Mays Landing.

Hamilton, Mercer county; population, 7,899. Dr. F. B. Zandt, President, Hamilton Square; Henry Davis, Hamilton Square; Chas. A. Comp, Trenton; Alex. Laird, Trenton; Harry Rogers, Assessor, Hamilton Square; W. C. Rockhill Hart, Clerk, Trenton; James N. Reed, Inspector, Trenton.

Hampton, Sussex county; population, 671. Isaac D. Williams. President, Baleville; J. A. Sigler, Halsey; Simeon Yetta, Baleville; J. W. Thompson, Clerk, Swartswood; H. D. Ridell, M. D., Inspector, Branchville.

* **Hanover, Morris county**; population, 6,228. William B. Davis, Clerk, Registrar and Inspector, Morris Plains.

Hardwick, Warren county; population, 405. Alonzo Hill, President; Jacob Bugle, John Yetter, all of Blairstown, R. F. D. No. 2; Marcus C. Hill, Clerk and Registrar, Marksboro, Dr. H. O. Carhart, Inspector, Blairstown.

Hardyston, Sussex county; population, 5,210. John Morehouse, President; Caleb Farber, Nicholas Farber, Registrar; Dr. Thomas L. Pellett, all of Hamburg; Geo. W. Lewis, Stockhalm.

* **Harmony, Warren county**; population, 1,490. Freeman Schuler, Registrar, Phillipsburg, R. F. D. No. 2.

* **Harrison, Gloucester county**; population, 1,682. Eli Heritage, Assessor, Richwood.

Hillsboro, Somerset county; population, 2,313. John V. M. Sutphen, President, Three Bridges; Henry C. S. Seiring, Neshanic; Cornelius Conover, Belle Mead; Henry S. Van Nuys, Registrar and Inspector, Millstone; John E. Anderson, M. D., Clerk, Neshanic.

Hillsdale, Bergen county; population, 1,072. George W. Saul, President; John H. Westphal, William Simons, A. L. Fritz, Clerk; George R. Stegman, Registrar, all of Hillsdale; George F. Shafer, Inspector, Hackensack; George M. Levitas, Health Officer, Westwood.

Hillside, Union county; population, ——. Frank H. Baker, President, Irvington Road; J. Elliott Hall, Clarke St., Harry Tindall, Woodruff Ave., John Leyser, Registrar and Clerk, Lyons Farms; Dr. F. H. Lovell, Inspector, Newark.

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* **No report received.**

Hohokus, Bergen county; population, 1,881. F. Z. Dator, President; R. V. Valentine, J. C. Straut, Albert Winter, Clerk and Registrar, all of Mahwah; Dr. C. P. De Yoe, Inspector, Ramsey.

* **Holland, Hunterdon county**; population, 1,699. H. B. Vansyckel, Clerk and Registrar, Mt. Pleasant.

Holmdel, Monmouth county; population, 1,058. C. Edward Tilton, Holmdel; Jonathan I. Holmes, Holmdel; Aaron Morris, Hazlet; Wm. M. Ackerson, Clerk and Registrar, Hazlet; Dr. Harvey, W. Hartman, Inspector, Keyport.

Hope, Warren county; population, 1,119. I. B. Hopkins, President, Great Meadows; C. T. Hartman, Hope; R. W. Harris, Delaware; C. S. Bartow, Clerk and Registrar, Great Meadows; Dr. Walter Storm, Inspector, Hope.

Hopewell, Cumberland county; population, 1,818. B. Frank Shark, President, Bridgeton, R. F. D., D. D. Davis, Shilah; Wm. C. Hannan, Bridgeton, R. F. D.; C. E. Bowen, Clerk, Shilah.

Hopewell, Mercer county; population, 3,171. Peter Voorhees, President, Hopewell; Isaac B. Scudder, Titusville; John C. Erickson, Pennington, R. F. D. No. 1; James R. Burroughs, Clerk and Registrar, Pennington, R. F. D. No. 1; Dr. J. W. Richards, Inspector, Pennington.

Howell, Monmouth county; population, 2,703. Walter P. Havens, M. D.,. President and Inspector, Farmingdale; Benj. M. Cooper, Lakewood; Robert H. Morris, Adelphia; Charles E. Ferry, Farmingdale; James H. Butcher, Clerk and Registrar, Freehold R. F. D. No. 2.

* **Hudson county**; population, 537,231. James L. Lynch, Secretary.

Independence, Warren county; population, 867. A. B. Leigh, President, Great Meadows; J. T. Lommason, James F. Johnson, F. W. Haggerty, M. D., Secretary; all of Vienna; E. Y. Williams, Registrar, Great Meadows.

* **Jackson, Ocean county**; population, 1,325. George C. Hankins, Clerk, Vanhiseville.

Jefferson, Morris county; population, 1,303. Edgar McCormack, President, Oak Ridge, R. F. D.; Amsi D. Allison, Oak Ridge, R. F. D.; Horace L. Cook, Lake Hopatcong; Charles Chamberlain, Registrar, Wharton, R. F. D.; Dr. Joseph, R. Riggs, Inspector, Oak Ridge, R. F. D.

Kingwood, Hunterdon county; population, 1,265. Preston Emmons, President, Stockton, R. D. No. 2; Rutan Heath, Frenchtown, Inspector, R. D. No. 1; Wm. J. Hoagland, F. S. Grim, M. D., William W. Case, Clerk and Registrar, all of Baptisttown.

Knowlton, Warren county; population, 1,556. Edward Dutt, President; Johnson J. Vanscoten, both of Delaware; Frank Clifton, Wm. B. Gilbert, Clerk and Registrar, both of Columbia.

Lacey, Ocean county; population, 602. Dr. G. E. Wallace, President and Inspector; Geo. W. Frazce, A. H. Grant, B. F. Matthews, Clerk and Registrar; Wm. R. Holmes, all of Forked River.

Lafayette, Sussex county; population, 683. Edward Ackerson, President; Jacob S. Losey, John D. Ackerson, Wm. S. Vought, Clerk and Registrar, all of Lafayette.

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* No report received.

* **Lakewood, Ocean county**; population, 5,149. H. J. Terwilliger, Secretary; A. M. Heron, M. D., Health Officer, both of Lakewood.

Landis, Cumberland county; population, 6,435. Dr. L. F. Hatch, President; Alex. M. Huston, Jacob Simonson, James Tarbolton, Joseph Scull, Dr. John H. Winslow, Inspector, Richard Bogg, Plumbing Inspector, all of Vineland; Ernest E. Howe, Clerk and Registrar, Vineland, R. F. D. No. 3.

Lawrence, Cumberland county; population, 1,746. E. L. Mulford, President, C. S. Stevens, D. W. Sheppard, Louis M. Hoaglim, Clerk; T. B. Sheppard, Registrar, all of Cedarville.

Lawrence, Mercer county; population, 2,522. Patrick Donnelly, President, R. F. D. No. 4, Trenton; John E. Gorden, R. F. D. No. 3, Princeton; Jasper R. Maple, R. F. D. No. 3, Princeton; E. K. Fee. Lawrenceville; Frank Pierson, Clerk, Lawrenceville.

Lebanon, Hunterdon county; population, 2,179. Geo. Allegar, President, Califon; J. Frank Lance, Pt. Murray, R. F. D.; J. N. Alpaugh, Glen Gardner; George H. Castner, Clerk and Registrar, Califon, R. F. D. No. 1; Dr. Edgar Hunt, Inspector, Glen Gardner.

Linden, Union county; population, 1,988. Geo. W. Bauer, President; John E. Tucker, John S. Mesler, George McGilloway, Jr., DeWitt C. Winans, Frank S. Stinson, Clerk and Registrar, all of Linden; Dr. J. S. Young, Inspector, Rahway.

Little Egg Harbor, Ocean county; population, 388. Ayer Parker, President, Parkertown; Wm. Speck, Tuckerton; B. Frank Homan, Parkertown, Dr. C. H. Conover, Tuckerton, Millard F. Parker, Clerk; Parkertown.

Little Falls, Passaic county; population, 3,750. Charles Booth, President; Fred Hennie, David Hawthorne, Alfred Halsey, Robert Van Ness, Wm. M. Zeliff, Clerk and Registrar; Dr. N. H. Youngs, Medical Inspector, all of Little Falls.

Livingston, Essex county; population, 1,025. F. M. Hoffman, Livingston; S. B. Winans, Livingston; Gotlieb Ochs, Chatham; R. F. D.; William Rathbun, Clerk and Registrar, Livingston; Dr. E. C. Peck, Inspector.

Lodi, Bergen county; population, 693. John Tunik, Jr., President; Frank Kotlaba, Frank Switz, John Clausen, Jr., Clerk and Registrar, all of Hackensack Sub. Station No. 2.

Logan, Gloucester county; population, 1,523. Wilbur F. Beckitt, President, Swedesboro; William F. Justice, Swedesboro; Charles Lamson, P. E. Stillwagon, M. D., Bridgeport; S. B. Platt, Clerk and Registrar, Bridgeport.

***Long Beach, Ocean county**; population, 107. Charles E. Sherborne, Clerk, Long Branch.

***Lopatcong, Warren county**; population, 766. Frank Cline, Registrar. Shimers.

Lower Cape May county; population, 1,188. George Dickenson President, Erma; Dr. W. A. Lake, Inspector, Erma; J. D. Hoffman, Fishing Creek; Linford Halbruner, Cold Spring; J. Hollis Hoffman, Clerk and Registrar, Cold Spring.

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* No report received.

Lower Allaways Creek, Salem county; population, 1,252. Albert M. Carll, President, Harmersville; Herman F. Smith, Canton; Lewis F. Smith, Hancocks Bridge; Edward Hancock, Clerk, Hancocks Bridge; Dr. F. B. Harris, Canton.

Lower Penns Neck, Salem county; population, 1,544. Hance Jaquett, President, Penns Grove; David Dixon, Salem; Charles P. A. Bright, Pennsville; Ellsworth L. Irelan, Clerk and Registrar, Salem.

Lumberton, Burlington county; population, 1,768. William Jones, President, Lumberton; A. Engle Haines, Medford, R. F. D. No. 3; Jacob C. Walters, Hainesport; E. C. Davis, Clerk, Registrar, and Inspector, Hainesport.

Madison, Middlesex county; population, 1,621. F. P. Lambertson, Cliffwood; William A. Quackenbush, Old Bridge, R. F. D. No. 1; D. H. Brown, Registrar, Old Bridge, R. F. D. No. 1; I. C. Crandall, M. D., Old Bridge; James Fountain, Clerk, Old Bridge, R. F. D. No. 1; Edward Barker, Inspector, Matawan, R. F. D. No. 1.

Manalapan, Monmouth county; population, 1,375. Edward Hendrickson, President, Englishtown; Joseph C. Sutphen, Englishtown; William C. Hartshome, Freehold; A. F. Applegate, M. D., Englishtown; W. Denise Herbert, Registrar, Englishtown; Garrett B. Conover, Clerk, Englishtown.

Manchester, Ocean county; population, 1,112. Daniel E. McCallion, President, Lakehurst; E. F. Larrabee, Lakehurst; L. P. Christofferson, Whitings; Harold Pittis, Clerk and Inspector, Lakehurst; E. T. Beers, Registrar, Lakehurst.

***Mannington, Salem county**; population, 1,606. Jonathan B. Grier, Clerk and Registrar, Salem.

Mansfield, Burlington county; population, 1,526. Dr. A. H. Patterson, President and Inspector, Georgetown; Elmer L. Tallman, B. Frank Haines, William R. Shark, Joseph H. Armstrong, Clerk and Registrar, all of Columbus.

Mansfield, Warren county; population, 1,238. William Boylor, President, Washington, R. F. D.; William Lance, Pt. Murray; Jacob Thomas, Pt. Murray; John C. Beaty, Registrar, Pt. Murray.

Mantua, Gloucester county; population, 1,529. John S. Kincaid, Sewell; Isaac C. Dilkes, Sewell; Edward Kean, Mantau; E. Z. Hillegas, Inspector, Mantua; William S. Hurff, Clerk and Registrar, Sewell.

***Marlboro, Monmouth county**; population, 1,754. J. D. Ely, M. D., Clerk, Marlboro.

*** Matawan, Monmouth county**; population, 1,472. Daniel Martin, Clerk, Matawan.

Maurice River, Cumberland county; population, 2,124. Howard Newcombe, President, Leesburg; Charles Grossman, Port Elizabeth; Wilbert Cruse, Dorchester; Henry Reeves, Jr., Clerk and Registrar, Leesburg; Dr. Charles Butcher, Inspector, Heislerville.

Medford, Burlington county; population, 1,903. Joshua T. Wills, President; Samuel T. Evans, Frank A. Braddock, William M. Potts, Clerk and Registrar; all of Medford.

Mendham, Morris county; population, 792. William B. Woodhull, President, Brookside; M. Fred Babbitt, Mendham; Milford S. Barnett, Chester; Frank Dean, Clerk, Brookside; Fred H. Garabrant, Registrar, Brookside.

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* No report received.

Middle, Cape May county; population, 2,974. Edwin S. Hewitt, President, Cape May Court House; L. M. Swain, Swainton; Ralph Schellinger, Green Creek; V. N. Erricson, Clerk and Registrar, Dias Creek; J. Morgan Dix, M. D., Inspector, Cape May Court House.

Middletown, Monmouth county; population, 6,653. Antonius Gibson, President, Port Monmouth; Ernest H. Taylor, Middletown; John N. Johnson, Jr., Belford; Frank Scott, Red Bank; Clinton B. Lohsen, Keansburg; Howard W. Roberts, Clerk, New Monmouth; Omar Sickles Assessor, Navesink; Dr. O. W. Budlong, Inspector, Belford.

Midland, Bergen county, population, 1,480. Otto Weisgerber, President, Ridgewood, R. F. D. No. 1; August C. Ohle, Hackensack, R. F. D. No. 2; John H. Walthery, Ridgewood, R. F. D. No. 1; John D. Bogert, Clerk and Registrar, Ridgewood, R. F. D., No. 1; Frank Freeland, M. D., Inspector, Maywood.

***Milburn Essex county**; population, 3,720. Charles R. Reeve, Clerk and Registrar, Millburn.

Millstone, Monmouth county; population, 1,461. A. B. Chamberlain, President, Perrineville; Geo. M. Davison, Perrineville; J. H. Ely, Robbinsville, R. F. D.; Geo. J. Ely, Clerk and Registrar, Cranbury, R. F. D.

Monroe, Gloucester county; population, 3,015. William P. Brick, President, David C. Champion, Edward F. Evans, Horace M. Fadden, M. D., John W. McClure, Secretary and Registrar, all of Williamstown.

Monroe, Middlesex county; population, 1,723. John D. Butcher, President, Cranbury, R. F. D., George McDowell, Cranbury, R. F. D.; Harry Rogers, Cranbury, R. F. D.; Robert R. Vandenbergh, Clerk and Registrar, Prospect Plains; J. L. Suydam, M. D., Inspector, Jamesburg.

Montague, Sussex county; population, 621. George Hooker, President; Alfred Hartrim, Henry J. Schneider, George McCarty, Clerk and Registrar; all of Port Jervis, R. F. D., No. 1, N. Y.; Dr. G. O. Pobe, Inspector, Port Jervis, N. Y.

Montgomery, Somerset county; population, 1,637. P. S. Terhune, President, Skillman; William I. Robinson, Clerk, Belle Mead; Jacob Boice, Harlinger; C. B. Allshouse, Registrar, Skillman.

Montville, Morris county; population, 1,944. George Bayliss, President; John Husk, John H. Capstick, Frank H. Starkey, Clerk; Fred Van Duyne, Registrar; all of Montville.

Morris, Morris county; population, 3,161. Thomas T. Sands, President, Registrar and Inspector; Lewis E. Clark, Willis H. Dutton, J. Paul Jamieson, Clerk; all of Morristown; Watson A. Barton, Morris Plains.

*** Mount Laurel, Burlington county**; population, 1,573. Benj. M. Haines, Clerk and Registrar; F. G. Stroud, M. D., Inspector, Moorestown.

***Mount Olive, Morris county**; population, 1,160. Hez. Smith, Clerk and Registrar, Flanders.

***Mullica, Atlantic county**; population, 811. John D. Carver, Clerk, Elwood.

Neptune, Monmouth county; population, 5,551. Leonard Hulit, President, Bradley Park; William A. Robinson, M. D., Ocean Grove; Thomas Wyncoop, West Grove; James L. Thompson, West Grove; Joseph Leaw, Ocean Grove; Charles A. Laue, Whitesville; Adrian J. L. Hommell, Clerk, Registrar and Inspector, Ocean Grove.

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* No report received.

New Haven, Burlington county; population, 948. Dr. Allen, President, New Egypt; R. W. Harker, Pointville; David Daselle, Wrightstown; George Parker, Cookstown; Charles Remine, Clerk and Registrar, Wrightstown.

* **New Providence, Union county**; population, 526. Chas. J. Drake, New Providence.

Northampton, Burlington county; population, 5,652. William H. Mason, President; Dr. Elmer D. Prickett, Howard Alcott, Albert G. Mayer, S. Earl Asay, M. H. Girven, Clerk and Registrar; Dr. R. H. Parsons, Inspector; all of Mt. Holly.

North Bergen, Hudson county; population, 15,662. Adolph Asmus, President; Henry Andes, George Hartmann, Edward Beck, J. F. Wurdenvan, James Nolan, Clerk; Thomas Dubelheiss, Registrar, August Maltz, Charles Henrichs, August Beberich, Inspector.

North Brunswick, Middlesex county; population, 990. Alfred Yorsten, President, New Brunswick; I. Van Denvates, R. F. D., No. 4, New Brunswick; Frank A. Hart, New Brunswick, R. F. D.; Michael Anderson, Jr., Clerk, New Brunswick; Dr. Riva, Inspector, Milltown.

***North Hanover, Burlington** county; population, 696. Benjamin Harker, Jr., Clerk, Wrightstown.

North Plainfield, Somerset county; population, 886. William de La R. Anderson, President, Plainfield; Albert Brokaw, Bound Brook, R. F. D., No. 1; Alex. Archibald, Scotch Plains; Francis E. Bodin, Clerk, Watchung; Theo. H. A. Luerrsen, Inspector, Watchung.

Ocean, Monmouth county; population, 1,377. Borden A. Jeffrey, President, Elberon; Harry G. Van Note, Clerk and Registrar; William B. Ireland, Oakhurst; Charles Woolley, Oakhurst; Dr. E. M. Beach, Health Officer; West Long Branch.

Ocean, Ocean county; population, 397. P. W. Warren, President; H. G. Brown, T. N. Couch, W. B. Wilkins, Clerk and Registrar; all of Waretown.

Oldmans, Salem county; population, 1,364. William S. Stiles, President; W. B. Darlington, William Haines, George S. Justice, Clerk and Registrar; Dr. H. T. Johnson, Inspector; all of Pedricktown.

Orvil, Bergen county; population, 970. H. D. Mills, President; D. Mackerly, George White, Charles H. Henion, Clerk and Registrar, all of Waldwick.

* **Overpeck, Bergen** county; population, 4,512. Howard B. Ficken, Registrar, Ridgefield Park.

Oxford, Warren county, population, 3,444. Charles R. Carson, President; Thomas Flynn, George Fox, D. B. Cooper, Clerk; Michael Mountain, Registrar, all of Oxford.

***Pahaguarry, Warren county**; population, 205. Hiram Zimmermann, Registrar, Dunfield.

Palisade, Bergen county; population, 1,141. Frederick Heine, President, New Bridge; John H. Vanderbeek Dumont; George Damm, Peetzburg; George Gengenagel, Clerk and Registrar, New Milford; Chester A. King, Inspector, Oradell.

Palmyra, Burlington county; population, 2,801. James E. Russell, President; George N. Wimer, Lewis A. Weikman, Frederick Blackburn, Clerk, Registrar and Inspector, Palmyra.

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* No report received.

*__Passaic, Morris county__; population, 2,165. Walter J. Swenson, Clerk and Reistrar, Stirling.

Pemberton, Burlington county; population, 1,679. Victor Bush, President, Pemberton; Walter E. Woolston, Mt. Holly; Joseph P. Lemmon, Brown's Mills; William H. Reeves, New Lisbon; M. W. Hargrove, Clerk, Brown's Mills; Barclay Seeds, Registrar, Pemberton; Dr. E. Hallingshead, Inspector.

Pensuaken, Camden county; population, 4,169. William Wimer, Jr., President, Delair; Louis H. Moore, Aden Pidgeon, Inspector; Dr. Loeling, Harry E. Horner, Clerk and Registrar, all of Merchantville.

Pequannock, Morris county; population, 1,921. F. M. Prescott, President, Riverdale; Harry Comly, Lincoln Park; Fred Ricker, Butler; Alfred Gilland, Clerk and Registrar; Pompton Plains; C. D. V. Romondt, M. D., Inspector, Pompton Plains.

Pilesgrove, Salem county; population, 1,786. N. C. Richman, President, Woodstown, R. F. D. No. 1; C. B. McAllister, Woodstown, R. F. D., No. 2; William A. Coombs, Woodstown; Dr. L. H. Miller, Woodstown; M. W. Buzby, Registrar, Woodstown, R. F. D., No. 1; F. P. Vanlier, Inspector, Woodstown.

* **Piscataway, Middlesex county**; population, 3,523. George W. Coriell, Registrar, New Market.

* **Pittsgrove, Salem county**; population, 2,394. George Schalick, Clerk and Registrar, Centreton.

Plumsted, Ocean county; population, 1,123. Harley Henderson President; Dayton Hopkins, James Larken, George Hartshorn, Clerk and Registrar; J. William Bickler, Inspector; all of New Egypt.

* **Pohatcong, Warren county**; population, 3,202. W. I. Jacoby, Finesville.

Pompton, Passaic county; population, 4,044. E. W. Wheeler, President, Midvale; E. R. Brown, Haskell; Henry Tutle, Bloomingdale; J. C. Beam, Clerk and Registrar, Midvale; Dr. D. W. Shippee, Inspector, Midvale.

Princeton, Mercer county; population, 1,178. S. P. Stryker, Clerk and Registrar; Dr. E. H. Bergen, President and Inspector; Charles McCarty, William I. Leigh, Ruben Farr, J. W. L. Anderson, all of Princeton.

Quinton, Salem county; population, 1,091. William Radell, President; Abner S. Patrick, Aaron D. Harris, Andrew S. Harris, Assessor, all of Quinton.

Randolph, Morris county; population, 2.307. John Pugsley, President, Dover; George W. Lanterman, Mt. Freedom; William Curnow, Dover, R. F. D. No. 2; Richard L. Cook, M. D., Dover; Ellison Coe, Clerk and Registrar, Mt. Freedom.

Raritan, Hunterdon county; population, 1,310. John B. Rockafellow, President, Flemington; Joel Hellyer, Flemington; Joseph Bodine, Flemington; Theo. H. Dilts, Clerk and Registrar, Three Bridges; Dr. O. H. Sproul, Flemington.

Raritan, Middlesex county; population, 2,707. Peter S. Meeker, President, New Brunswick; William R. Drake, Stelton; Edward Pfeiffer, Metuchen; William T. Woermer, Clerk, Metuchen, R. F. D., No. 1.

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* No report received.

Raritan, Monmouth county; population, 1,583. J. L. T. Webster, President, Hozlet; Charles Carr, Keansbury; R. L. Brown, Keyport, R. F. D., No. 1; P. O. Weigand, Hazlet; Herman L. Lehr, Clerk, Registrar and Inspector, Keansburg.

Readington, Hunterdon county; population, 2,569. Silas Schomp, President, Stanton; D. H. Miller, White House; C. C. Huff, Three Bridges; N. T. Hoffman, Clerk and Registrar, White House Sta.; Dr. F. L. Johnson, Inspector, Stanton.

Riverside, Burlington county; population, 4,011. Jacob Theurer, President; William Mathias, J. Taylor Neal, Charles Heiss, Clerk and Registrar; Dr. C. B. Lambert, Inspector, all of Riverside.

Rivervale, Bergen county; population, 450. Dr. Joseph Kucher, President; Edward Havers, Ellis Collignon, M. J. Ford, P. A. Post, Clerk and Registrar; M. J. Ford, Inspector, all of Westwood.

Rockaway, Morris county, population, 4,835. Sidney F. Cook, President, Denville; John Cox, Hibernia; Daniel J. Howard, Wharton, R. F. D., No. 1; Charles Parliman, Rockaway; Dr. F. W. Flagge, Rockaway; James Lash, Clerk and Registrar; Denville.

* **Roxbury, Morris county**; population, 2,414. E. W. Kilpatrick, Clerk and Registrar, Landing.

Saddle River, Bergen county, population, 3,047. Adam Hopper, President, Fair Lawn; Theodore Chamberlain, Dundee Lake; Otto P. Pehle, Rochelle Park; Isaac A. Hopper, Clerk and Registrar, Fair Lawn.

Sandyston, Sussex county; population, 855. Ira Stall, President, Layton, James Black, Hainesville; George Swartmont, Hainesville; Daniel Johnson, Bevans; Dr. A. A. Ranson, Clerk and Inspector, Layton; Warren Van Sickle, Assessor.

Sayreville, Middlesex county; population, 5,783. Joseph Allgair, President, Sayreville; Edward E. Clark, Sayreville; William Burke, Sayreville; Dr. J. H. Beekman, Sayreville; Thomas Creamer, Clerk and Registrar, Sayreville; Henry Boyler, Inspector, Sayreville.

* **Shanong, Burlington county**; population, 483. J. W. B. Jennings, Assessor, Indian Mills. No board.

Shrewsbury, Monmouth county; population, 3,238. Harry G. Borden, President and Registrar, Shrewsbury; Aaron Armstrong, Shrewsbury; Elias S. Black, Little Silver; John C. Cranford, Eatontown, R. F. D., No. 1; George H. Lippincott, Clerk, Little Silver; Benj. F. King, M. D., Inspector, Shrewsbury.

Southampton, Burlington county; population, 1,778. John Brushwood, President; George W. Elbert, James K. Naylor, Charles G. Naylor, Clerk; J. C. Brown, M. D., Inspector; all of Vincentown.

South Brunswick, Middlesex county; population, 2,443. Arthur Turton, President, Mon. Junction; H. W. Jeffers, Plainsboro; Chas. R. Cox, Cranbury; Wm. Perkins, Clerk and Registrar, Kingston; Dr. E. Carroll, Inspector, Dayton.

South Harrison, Gloucester county; population, 694. Mathew Allen, President; Clayton E. Kirby, John Steading, all of Mullica Hill, R. F. D.; Samuel Ashcraft, M. D., Mullica Hill; D. C. Lippincott, Clerk, Harrisonville.

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* No report received.

South Orange, Essex county; population, 2,979. Charles A. Cross, President, South Orange; Wm. H. Kemp, Maplewood; William A. Greenaway, Irvington; Dr. G. Herbert Taylor, Health Officer; Maplewood; Wm. G. Miller, Registrar, Maplewood; Edward R. Arcularius, Clerk, Maplewood.

* **Sparta, Sussex county**; population, 1,579. Sanford Reed, Clerk and Registrar, Houses.

Springfield, Burlington county; population, 1,278. Howard Letts, President, Jobstown; Ezra F. Burr, Burlington, R. F. D; Harry C. Applegate, Juliustown; Dr. Lyman Hollingshead, Pemberton; Aaron H. Burtis, Clerk; Mt. Holly, R. F. D., No. 2.

Springfield, Union county; population, 1,246. Robert Morrison, President, Richard Trivett, George Parcell, Joseph Kooch, Fred Kenley, Lewis T. Terry, Clerk and Registrar; Dr. J. A. Stiles, Inspector; all of Springfield.

* **Stafford, Ocean county**; population, 934. George F. Pharo, Clerk and Registrar, Manahawkin.

Stillwater, Sussex county; population, 796. Charles R. Westbrook, President; Wm. P. Struble, Swartswood; Eugene Huff, Stillwater; E. W. Landes, M. D., O. Van Horn, Clerk and Registrar, Stillwater.

Stow Creek, Cumberland county; population, 886. Eric Carlson, President, R. F. D., No. 1; Bridgeton; Albert F. Shimp, Bridgeton, R. F. D. No. 3; Charles Ware, Roadstown; William H. Davis, Secretary; Bridgeton, R. F. D., No. 3.

* **Tabernacle, Burlington county**; population, 487. George H. Wisham, Clerk, Vincentown, R. F. D., No. 2.

Teaneck, Bergen county; population, 2,082. Robert Shaw, President, Englewood, R. F. D.; J. E. Pearce, Englewood, R. D.; Henry Clausen, Hackensack; John Brower, Englewood, R. F. D.; David Beck, Hackensack; Peter I. Ackerman, Clerk, Hackensack.

Tewksbury, Hunterdon county; population, 1,742. F. L. Lindabury, President, Lebanon, R. F. D., No. 2; L. M. Hoffman, Califon, R. F. D., No. 2; Henry F. Ciny, White House Sta., R. F. D., No. 2; Hez. Philhower, Clerk and Registrar, Califon; Francis A. Apgar, M. D., New Germantown.

Union, Bergen county; population, 4,076. Arthur A. Clay, President; James A. McKenna, George Smith, Dr. John W. Clarke, Chas. J. Rodgers, Clerk and Registrar; Henry N. Stagmeier, Inspector; all of Lyndhurst.

Union, Hunterdon county; population, 930. William Best, President, Pattenburg; Godfrey Emery, Jutland; Archie Cregar, Jutland; A. J. Hahn, M. D., Pattenburg; Morris Stockton, Clerk and Registrar, Pattenburg.

Union, Ocean county; population, 982. John W. Chew, President; Horace Sprague, Howard Perrine, Michael M. Olnowich, Clerk and Registrar; all of Barnegat.

Union, Union county; population, 3,419. D. H. Beach, Union; Gottlieb Schmable, President, Lyons Farms; Howard B. Klein, Hilton; D. Hobart Sayre, Clerk and Registrar, Union.

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* No report received.

Upper, Cape May county; population, 1,483. Harry Young, President, Beesleys Point; James S. Smith, Petersburg; Z. A. Townsend, Tuckahoe; Jess T. Young, Clerk, Beesleys Point; S. C. G. Stephens, Registrar, Tuckahoe; R. Marshall, Inspector, Tuckahoe.

Upper Freehold, Monmouth county; population, 2,053. Isaac S. Dawes, President, Imlaystown; Joseph C. Johnston, Allentown; Chas. J. Haley, Cream Ridge; John Y. Sinton, Clerk, Imlaystown; William Quicksall, Registrar, Homerstown.

Upper Penns Neck, Salem county; population, 744. David W. Wright, President; N. Mattson, Elmer Dubois, Willard Layton, Clerk and Registrar; Dr. C. F. Flemming, Inspector; all of Penns Grove.

Upper Pittsgrove, Salem county; population, 1,754. William F. Mayhew, President, Elmer; Charles Driver, Monroeville; John Wiltsee, Monroeville; Geo. W. Fitch, M. D., Daretown; R. A. Robinson, Clerk and Registrar, Monroeville.

Vernon, Sussex county; population, 1,675. Lewis Kinney, President, McAfee Valley; Chas. L. Giveans, Glenwood; N. P. Ryerson, Clerk and Registrar, Gleenwood; Edw. P. Uptegrove, Inspector, Vernon.

Voorhees, Camden county; population, 1,174. Wm. I. Tomlinson, President, Kirkwood; John P. Thompson, Gibbsboro; Rudolph Waad, Gibbsbora; Christian Heartner, Dr. Wm. Wescott, Inspector, Berlin; S. H. Gardiner, Clerk and Registrar, Ashland.

Wall, Monmouth county; population, 3,817. Joseph H. Brown, President, Como; S. Bartley Peace, Buelle; E. C. White, Belmar; Geo. E. Rogers, Clerk, Registrar and Inspector, Belmar.

Walpack, Sussex county; population, 286. Eugene Rosenkrans, President, Flatbrookville; Lester J. Fuller, Walpack Centre; Emmet Struble, Walpack Centre; J. W. Bunnell, Clerk, Walpack Centre; L. B. Smith, Inspector, Bushkill, Pa.

Wantage, Sussex county; popuation, 2,077. Walter J. Hart, President; Frank Meddaugh, James Wilson, J. House, S. M. Parcell, Clerk and Registrar; H. D. Vangasbeck, Inspector; all of Sussex.

* **Warren, Somerset** county; population, 1,036. Geo. Bowers, Secretary, Warrenville.

Washington, Bergen county; population, 100. Township Committee —Philip K. Sweet, Harold E. Stanford, August C. Ramisch, J. Henry Thomas, Clerk; all of Westwood.

Washington, Burlington county; population, 597. Thomas K. Sooy, President; Julius Gerber, James M. Crowley, Augustus E. Koster, Clerk and Registrar; all of Green Bank; Myrtle Frank, M. D., Inspector, Egg Harbor City.

Washington, Gloucester county; population, 1,396. S. R. Hurff, President, Turnerville; August Their, Jr., Sewell, R. F. D. No. 1; Chas. Nicholson, Cross Keys; C. D. Nicholson, Clerk and Registrar, Turnerville.

Washington, Mercer county; population, 1,090. Charles Tindall, President, Windsor; Chas. H. Conover, Hightstown; Mahlon Mershon, Robbinsville; C. N. Hutchinson, Registrar, Robbinsville; E. B. Yard, Clerk, Robbinsville; F. M. Arthur, M. D., Inspector, Hamilton Square.

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* No report received.

Washington, Morris county; population, 1,900. S. A. S. Gulick, President, Hackettstown; John Bum, Califon, R. F. D.; James Anthony, Inspector, German Valley; G. H. Sliker, Clerk and Registrar; Pt. Murry, R. F. D.

* **Washington, Warren county**; population, 1,023. Samuel Rinehart, Clerk, Washington.

Waterford, Camden county; population, 1,484. J. I. Noverder, M. D., President, Inspector, Atco; Henry Brodbeck, Atco; Johnson Strang, Waterford; Theo. Schleinkofer, Clerk and Registrar, Atco.

Wayne, Passaic county population, 2,281. H. L. Hammond, President, Mt. View; Larry Berdan, R. F. D. No. 1, Paterson; Aaron Lawane, R. F. D. No. 1, Paterson; Dr. Warren H. Young, Little Falls; Thos. D. Ryerson, Assessor, Wayne.

Weehawken, Hudson county; population, 11,228. Emile W. Granert, President; T. L. Anderson, T. J. Gallagher, H. C. Hansen, Wm. E. Hansen, Silas W. Platner, Fred Vincent, John G. Meister, Clerk; Dr. A. E. Fendrich, Inspector; all of Weehawken.

Westampton, Burlington county; population, 564. Bloomfield Pew, President; Burnwood Haines, Frank McFarland, Dr. Elmer D. Prickett, all of Mt. Holly; Harvey J. Gaskill, Secretary, Mt. Holly, R. D. No. 1.

West Amwell, Hunterdon county; population, 866. Chas. A. Slack, President, R. D. No. 2; Richard Runkell, R. D. No. 1; S. C. Hoff, R. D. No. 2; Geo. H. Carr, Clerk and Registrar, R. D. No. 2; F. W. Larison, M. D., Inspector; all of Lambertville, R. D.

West Deptford, Gloucester county; population, 2,057. Joseph A. Moore, President, Thorofare; R. M. Plum, Thorofare; J. Wilmer Leonard, Thorofare; James Hunter, M. D., Inspector, Westville; James Carter, Clerk and Registrar, Thorofare.

West Milford, Passaic county; population, 1,967. Walter Vreeland, President, Macopin; James E. Terhune, Newfoundland; Theo. Stickles, Newfoundland Dr. D. E. Drake, John M. Weaver, Clerk and Registrar, Newfoundland.

West Windsor, Mercer county; population, 1,342. Jacob R. Wyckoff, President, Princeton Junc.; Walter S. Grover, Princeton Junc.; Hiram Mount, R. F. D. No. 2, Trenton; Hiram A. Cook, Clerk, Dutch Neck; H. J. Coleman, Registrar, R. F. D. No. 2, Trenton.

Weymouth, Atlantic county; population, 899. Anderson Campbell, President, Tuckahoe; Thomas Bailey, Tuckahoe; John Farmer, F. R. McKeague, Clerk, Tuckahoe; R. Marshall, M. D., Inspector, Tuckahoe.

White, Warren county; population, ——. Daniel Spangenberg, Secretary, Belvidere.

Willingboro, Burlington county; population, 562. Joseph Wills, Jr., President, Burlington, R. D.; John S. Perkins, Beverly, R. D.; Elwood Hart, Rancocas; Howard J. Hart, Registrar, Rancocas.

Winslow, Camden county; population, 2,919. Fred Priestley, President, Elmer; Henry Kelling, Waterford, Fred Sickles; Sicklerville, James T. Russell, Clerk and Registrar, Cedar Brook; Dr. Cunningham, Inspector, Hammonton.

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* No report received.

Woodbridge, Middlesex, Middlesex county; population, 8,948. B. J. Dunigan, Registrar and President, Woodbridge; J. C. Fowler, Sewaren; H. E. Pender, Sewaren; H. N. Philipp, Woodbridge; J. E. Waring, Sewaren; E. B. Mundy, Fords; C. H. Alexander, Clerk, Keasbey; R. A. Hirner, Inspector, Woodbridge.

* **Woodland, Burlington county**; population, 475. W. J. Buzby, Clerk, Chatsworth.

* **Woolwich, Gloucester county**; population, 1,136. C. H. Brown, Secretary, Swedesboro.

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* No report received.

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